

# BIOLOGICAL RESOURCES AND WETLAND DELINEATION REPORT



FOR:

## THE HIGHLANDS AT WARNER SPRINGS

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TM 5450, RPL2

ER 81-04-006A

WARNER SPRINGS  
SAN DIEGO COUNTY, CALIFORNIA

PREPARED FOR

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A handwritten signature in blue ink, appearing to read "William T. Everett", with a long horizontal flourish extending to the right.

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## SUMMARY OF FINDINGS

The Highlands at Warner Springs project is the subdivision of a single 149.7 acre parcel into 28 lots suitable for single family residential development. The project site is located east of Highway 79 and south of the existing Los Tules residential development at Warner Springs, east of Lake Henshaw in the northeast portion of San Diego County.

The site is currently undeveloped and in a natural condition, dominated by Red Shank Chaparral and Chamise Chaparral with small areas of Dense Coast Live Oak Woodland. The site is transected by Los Coyotes Road.

The site contains no wetlands, based on any jurisdictional criteria. No sensitive plant or animal species were identified during the site surveys, and the project is unlikely to impact any rare, sensitive, threatened, or endangered plants or animals.

The project will impact 91.3 acres of Red Shank Chaparral, 44.8 acres of Chamise Chaparral, and 5.0 acres of Dense Coast Live Oak Woodland. A total of 1.0 acres of Red Shank Chaparral, 2.4 acres of Chamise Chaparral and 2.4 acres of Dense Coast Live Oak Woodland will be preserved on-site within Biological Open Space Easements.

Mitigation for impacts will be accomplished by either by purchasing inholdings within the Cleveland National Forest or Anza Borrego State Park, or through an approved mitigation bank. If an inholding is purchased the lands will be either transferred to a governmental agency charged with conservation of natural resources via fee title (with demonstration of long term management capabilities) or dedicated in a conservation or open space easement to the County and the land will be managed through an approved Resource Management Plan to the satisfaction of the Director of Planning and Land Use.



## INTRODUCTION

The Highlands at Warner Springs Project is a 28 lot Tentative Map and Specific Plan Amendment located south of the existing Los Tules development at Warner Springs, west of the Los Coyotes Indian Reservation, and north of Vista Irrigation District land in northeast San Diego County, California (Figures 1, 2, and 7).

The site consists of a 149.7 acre single parcel (APN 137-090-37) transected on its north/south axis by Los Coyotes Road. The site is situated between 1051 and 1128 meters above sea level (Hot Springs Mountain 7.5 minute series quadrangle, Figure 3). The approximate USGS coordinates of the site are 33°16.5'N, 116°37.5'W. The areas to the east and west of the property are undeveloped and similar in nature to the project site. The area to the south contains open rangeland currently heavily grazed by cattle. Contiguous on the north is the existing Los Tules residential community.

The subject parcel, with the exception of Los Coyotes Road, contains several rarely used dirt trails, an unused water line, and is essentially undeveloped and in a natural condition.

This purpose of this Biological Resources Report and the attached Biological Resources and Proposed Open Space Map is to describe biological resources within the property and 100 feet beyond on all sides, and to address specific issues identified in the County's scoping letters of September 30, 2005 and May 25, 2006.

As noted in the first scoping letter, the project site was previously evaluated in a 1981 Environmental Impact Report (EIR) for the Warner Springs area.

## METHODS

To assess the biological resources of the property, William Everett initially visited the site on 13 November 2005. Conditions were conducive to unrestricted plant and animal observation, with no cloud cover, temperatures in the mid 60s, and a 3-6 knot NE wind. The site visit lasted from 0930 to 1530. During the visit I was able to examine the entire property and adjacent areas. Observations on-site were recorded as they were made, and form the basis of this report and the Biological Resources Map. Animals were identified using scat, tracks, burrows, vocalizations, or direct observation with the aid of 10X42 Leica binoculars. Vegetation mapping was conducted in accordance with vegetation community definitions as described in Holland (1986) and Oberbauer (1996). In addition, vegetation mapping on-site was aided by the use of aerial and satellite photographs. On-site measurements were aided by the use of a Rolatape® Model 300 Distance Measuring Wheel. Area calculations were taken from the base map provided by the project engineer using AutoCad® utilities and a Scale Master Classic® Digital Plan Measure. It should be noted that all vegetation community mapping is verified on the ground to the greatest degree possible in the absence of a systematic land survey. All vegetation areas and boundaries are estimates subject to final delineation by a licensed professional land surveyor.

In addition, William Everett and Susan Scatolini performed focused surveys for sensitive plant species, focused surveys for Gray Vireos *Vireo vicinior*, and habitat assessments for several sensitive animal species on 2 June 2006. A habitat assessment for Quino Checkerspot Butterflies *Euphydryas editha quino* was conducted on 12 June 2006 (See below for details).

### Sensitive Species and Habitats

Prior to the site visits, a variety of sources were reviewed to ascertain the possible occurrence of sensitive species at the project site. First, soil types (Bowman 1973) were checked to determine if the site contains soils known to support sensitive plant species. Records searches for the USGS quadrangle and surrounding quads were done of the California Natural Diversity Data Base (CNDDDB) and California Native Plant Society (CNPS) On-Line Inventory of Rare and Endangered Plants. Any sensitive species known to occur in the vicinity were given special attention, and available natural history information was reviewed. Seasonal occurrence patterns (e.g., annual plants, migratory birds) were factored into survey plans in the event that site visits were made during time periods when certain species are not present or conspicuous. Information sources include the Jepson Manual (1993), Rare Plants of San Diego (Reiser 1994), A Flora of San Diego County, California (Beauchamp 1986), San Diego Native Plants (Lightner 2006), U.S. Fish and Wildlife Service Recovery Plans for Threatened/Endangered Species, the San Diego County Bird Atlas (Unitt 2004), and numerous other references, publications, and on-line resources. Typically, 15-20 field guides to various taxa are taken into the field for quick reference if necessary.

A list of sensitive species with potential to occur at the site provided by DPLU after the first submittal was reviewed prior to focused spring surveys. All species on the list were reviewed, and those species requiring directed or focused protocol surveys were noted and given special attention (Appendices D and E).

In the field, potentially sensitive plants species not readily identified *in situ* were photographed and/or collected for identification via keys or other methods.

During site visits, all habitats were assessed for their suitability for occupation by any sensitive species with potential to occur.

## RESULTS<sup>1</sup>

### Soils

Based on soil conservation service maps (Bowman 1973), the soils for the property consist of three types: Tollhouse rocky coarse sandy loam, 5-30% slopes, eroded (ToE2), Tollhouse rocky coarse sandy loam, 30-65% slopes (ToG), and Crouch rocky coarse sandy loam,

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<sup>1</sup> Scientific and common names for plant species are derived from The Jepson Manual, 1993, U.C. Press; scientific and common names for birds from the A.O.U. Check-list of North American Birds, 1998, Allen Press, Inc.

5-30% slopes (CuE). Although a detailed soil analysis is beyond the scope of this report, on-site examination appeared to confirm the presence of these soil types.

## Botany

The dominant vegetation community on-site is Red Shank Chaparral. Dense Coast Live Oak Woodland occurs primarily in several discrete patches in the northern portion of the site, and Chamise Chaparral occurs in the southern portion. The existing road is Urban/Developed habitat (See Vegetation Map - Figure 6). A floral species list compiled from the site survey is provided in Appendix A. Table 1 shows acreages of the respective habitat types. Because of the maturity of the vegetation, it is apparent that the site has not burned in many decades.

It should be noted that a Blue Line Stream and associated riparian habitat occur south of the project site, beyond the 100' off-site area considered in this report. As noted above, this off-site riparian area is currently heavily grazed.

## Plant Communities

### Redshank Chaparral (Holland Code 37300) - 92.3 acres

This habitat type is dominated by very dense stands of Red Shank *Adenostoma sparsifolium*, reaching heights of up to 20 feet. The Red Shank is interspersed with scattered Eastwood and Bigberry Manzanitas *Arctostaphylos glandulosa* ssp. *glandulosa* and *A. glauca*. As noted in Holland (1986), this vegetation type is very similar to and often intergrades with Chamise Chaparral (Holland Code 37200), with Chamise *Adenostoma fasciculatum* being also common on the project site (especially in the southern portions of the site).

### Chamise Chaparral (Holland Code 37200) - 47.2

This habitat type, restricted to the southern portion of the project site, is dominated by Chamise interspersed with widely spaced individuals of Interior Flat-top Buckwheat *Eriogonum fasciculatum* ssp. *foliolosum*, Our Lord's Candle *Yucca whipplei* ssp. *whipplei*, Holly-leaved Cherry *Prunus ilicifolia*, Mountain Mahogany *Cercocarpus betuloides*, and Scrub Oak *Quercus berberidifolia*.

### Dense Coast Live Oak Woodland (Holland Code 71162) - 7.6 acres

Coast Live Oak *Quercus agrifolia* trees dominate this habitat type. The understory is poorly developed and in places consists mostly of leaf litter and occasional Poison Oak *Toxicodendron diversilobum*. A few scattered individual Coast Live Oak and Engelmann Oak *Q. engelmannii* trees occur along the roadway and within the chaparral. Individual Engelmann Oaks are shown on the attached Vegetation Map.

Urban/Developed Habitat (Holland Code 12000) - 2.6 acres

The paved roadway and its shoulders constitute the only area defined as this habitat type on the project site.

## Zoology

Wildlife recorded during the surveys included common and expected species for the habitats that occur on-site. Nine species of birds, four species of mammals, and one reptile species were detected. A complete list of animals detected on-site can be found in Appendix B. The relatively low numbers of species observed is likely attributable to the density and homogenous nature of the vegetation. Additional common species certainly occur.

## Sensitive Biological Resources

Sensitive habitats include those which are considered rare or declining in the region, or support sensitive plants or wildlife. Sensitive plants or wildlife are defined here as species of rare, threatened, or endangered status, or depleted or declining species according to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), California Native Plant Society (CNPS), or species specifically considered sensitive by the County of San Diego.

### Sensitive Habitats

All native vegetation types on the project site (Red Shank Chaparral, Chamise Chaparral, and Dense Coast Live Oak Woodland) are considered sensitive by the County.

### Sensitive Plants and Wildlife

The survey of the property was conducted with special attention to looking for plant and animal species that are considered sensitive according to the County, USFWS, CDFG, CNPS, and the CDFG's Natural Diversity Database (CNDDDB) record for the Hot Springs Mountain 7.5 minute quadrangle. Appendix D provides a list of species that were considered to have at least some potential to occur on-site. All these species were looked for.

### Sensitive Plants

Four individual **Engelmann Oak** *Quercus engelmannii* trees were noted during the site surveys. All are located within several feet of Los Coyotes Road (See Figure 6 and Biological Resources Map). Because these trees are situated within the area currently requiring fire abatement, they are already considered impacted. Regardless, fire abatement requirements would only mandate limbing any low-hanging branches up to six feet off the ground. The project would not result in any new impacts to this species.

## Focused Spring Plant Survey

Because the initial site survey was conducted in November 2005, it was determined that it would be necessary to conduct a Spring focused survey for sensitive plants. This focused survey was conducted on 2 June 2006 by CALTRANS District Biologist (working under private contract) Susan Scatolini, a senior biologist and botanist with widespread experience in Southern California extending over more than 15 years. Special attention was given to looking for specific plant species are listed in the County scoping letter of May 25, 2006 (Appendix D). None of the species in question were detected or considered likely to occur, mostly due to a lack of suitable habitat or soils.

No other sensitive plant species are considered likely to occur on the project site.

## Sensitive Wildlife - Habitat Assessments

The **Arroyo Chub** *Gila orcutti* is a small, chunky minnow found in slow moving or backwater sections of warm to cool streams with mud or sand substrates in coastal Southern California. Because the chub (a fish) requires water to exist, and no such water/habitat exists on the project site, there is no probability that this species occurs. Thus, focused surveys for this species are not recommended.

The **Quino Checkerspot Butterfly** *Euphydryas editha quino* was listed as an endangered species on January 16, 1997. The Quino is best thought of as a two-phase insect: the larvae (caterpillar) and the flying adult (butterfly). The larvae feed virtually exclusively on a small ephemeral annual plant - Dot-seed Plantain *Plantago erecta*. The Plantain competes poorly with other plants and tends, therefore, to be found on open soils, frequently on clays. A closed canopy of either shrubs or weedy annuals and perennials will preclude the Plantain from a location. In the laboratory, the larvae also feed on a small suite of plant species from the Monkey-flower family (*Scrophulariaceae*), but they have not been found on these plants in the wild (with one or two rare exceptions). The adult Quino can be found in association with the larval food plants - it is here that the adult hatches from its pupal case and it is here that the female lays her eggs - but they also exhibit a behavior known as "hilltopping." When they hatch from their pupa, adult males fly to the nearest hilltop (local topographic high point) where they patrol awaiting the arrival of female Quino. Mating occurs on these hilltops with the males then continuing their patrols and the females returning to the areas of larval food plants where they lay their eggs.

Given the life history outlined above, it can be logically concluded that a survey for the quino checkerspot butterfly would also be in two phases: monitoring of stands of the food plant and monitoring hilltopping locations, both during the flight season of the butterfly (Fish and Wildlife Service Protocol, 2002).

The site was surveyed for Quino Checkerspot Butterfly by staff from Helix Environmental in 2004 with negative results (Appendix F). Their report indicated that they found no host plants and concluded the site was not suitable for the species.

A subsequent visit to the site was made on 12 June 2006 with David Faulkner, a professional entomologist and expert on Quino Checkerspot Butterfly. In his professional opinion the site is not suitable for use by Quino Checkerspot Butterflies based on the absence of suitable habitat and larval host plant species.

On the project site, no stands (or even individuals) of the *Plantago* were located during the biological survey or the focused Spring survey conducted on 2 June 2006. According to Beauchamp (1986) *Plantago erecta* occurs at elevations of less than 700 meters (= 2,300 feet), considerably below the 3,500 foot elevation of the project site. Indeed, the dense stands of redshank chaparral and lack of open, rocky areas likely precludes the occurrence of the *Plantago*. In the absence of suitable host plants, open ground, and rock outcrops, and as indicated by the negative protocol surveys, the occurrence of this species is highly unlikely.

Although the project site is within the greater area suggested for 2006 surveys by the U.S. Fish and Wildlife Service (= ~40% of the County, or 60+% of the County west of the deserts), it is not within the known historic range of the species, and it is not with any of the designated Recovery Units for the Species (Recovery Plan for Quino Checkerspot Butterfly, 2003). Typically, a project site must have one or more suitable habitat characteristics for surveys to be recommended. Because of a lack of suitable habitat and the apparent absence of the host plant, focused protocol surveys for this species on the project site are not recommended.

The potential for occurrence on-site of **Stephens' Kangaroo Rat** *Dipodomys stephensi* (SKR) is low. This species is on the federal endangered and state threatened species lists. A known occurrence of this species is recorded within the SPA in the open grasslands northeast of Lake Henshaw, about a mile west of the project site. A close examination of the project site for signs of SKR inhabitation and habitat (characteristic burrow entrances, runways, and scats) was made during the site visits, and no such signs were detected.

Until the last few years, Stephens' Kangaroo Rats were known to occur only in suitable relatively open habitat in northern San Diego and in Riverside Counties. Until relatively recently, the southernmost of the known occupied sites were in the San Luis Rey USGS quadrangle, west of Guajome Lake, south of the San Luis Rey River, and north of Miracosta College (O'Farrell and Uptain 1989). At the time of the O'Farrell and Uptain studies, there were 132 known sites in the two counties. Since then, more sites have been discovered, but most of these have been in Riverside County. Of note have been two disparate and unexpected populations, the first located near the Ramona airport, and another in flatlands of the upper reaches of the Guejito river valley (Art Davenport, USFWS, pers. comm.).

According to O'Farrell and Uptain (1989), "SKR can exist in extremely linear configurations and is capable of surviving along dirt roads in marginal and, in some cases, unsuitable habitat. This widespread trace occurrence is ideal for rapid colonization of areas that achieve the appropriate seral stage. Such an intermediate seral grassland will be colonized by SKR, but the eventual succession to shrubs would render the habitat no longer optimal or even

suitable for SKR.” SKR prefer drier or well-drained areas with adequate burrow and seed food supplies, and would not inhabit dense mature chaparral habitats.

In the absence of suitable habitat, further field effort to search for or live trap SKRs on the project site would be unwarranted. Considering all of the above, impacts to this species from this project are not anticipated.

The **Golden Eagle** *Aquila chrysaetos* is a protected species known to be declining in San Diego County. The nearest nesting location to the project site is a well-known annually occupied tree nest located on the wooded slopes above the south edge of Lake Henshaw, nearly nine miles away.

Golden Eagles forage over open habitat in search of small mammalian prey. The extensive grasslands surrounding Lake Henshaw offer ideal foraging habitat for this species. No Golden Eagles were observed during the site visits, and none are expected to use the site. This is mainly because the dense, high vegetation that typifies the project site does not allow visibility of prey species, and small mammalian prey prefer the more friable soils typical of grasslands and disturbed habitat. Given the abundance of ideal foraging habitat elsewhere in the vicinity, it is unlikely that the site offers habitat usable by Golden Eagles. Impacts to this species as a result of project implementation are not anticipated.

The **Southwestern Willow Flycatcher** *Empidonax traillii extimus* is a small insectivorous bird that breeds in dense riparian habitats across the southwestern United States. Once locally common and widely distributed, the southwestern willow flycatcher has suffered dramatic population declines during the 20th century, primarily due to hydrologic and habitat alteration of rivers and streams and brood parasitism by the Brown-headed Cowbird. It was listed as Federally Endangered in 1995, State Endangered in 1990.

Southwestern Willow Flycatchers measure about 5.75 inches (15 cm) in length, and weigh only about 0.4 ounces (12 g). Overall, it is roughly the size of a small sparrow. Both sexes look alike. The flycatcher's appearance is overall greenish or brownish gray above, with a white throat that contrasts with a pale olive breast. The belly is pale yellow. Two white wing bars are visible, but the eye ring is faint or absent. The upper mandible is dark, and the lower mandible light. It closely resembles the other races of Willow Flycatcher, and several other species of the *Empidonax* genus, particularly the closely-related Alder Flycatcher *Empidonax alnorum*. The *Empidonax* flycatchers are renowned as one of the most difficult groups of birds to distinguish by sight alone. Familiarity with its vocalizations is essential for identifying this species and its subspecies.

Prior to being listed as an endangered species in 1995, the Southwestern Willow Flycatcher was seldom studied, and as a result there was a dearth of information on the bird's basic ecology, natural history, distribution, and status.

The Southwestern Willow Flycatcher is a neotropical migrant, which means it breeds in North America and spends the winter in Central America. Its breeding range includes Southern

California (from the Santa Ynez River south), Arizona, New Mexico, extreme southern portions of Nevada and Utah, extreme southwest Colorado, and western Texas.

Almost all Southwestern Willow Flycatcher breeding habitats are within close proximity (less than 20 yards) of water or very saturated soil. This water may be in the form of large rivers, smaller streams, springs, or marshes. At some sites, surface water is present early in the nesting season, but gradually dries up as the season progresses. Ultimately, the breeding site must have a water table high enough to support riparian vegetation.

Southwestern Willow Flycatchers are communal breeders, meaning that most known breeding locations support a number of pairs. Solitary breeding pairs are rare. This pattern is likely the result of the species' philopatric nesting habits; they return each year to the same nesting locale. Dispersing young seem to also return to the natal breeding grounds. This behavior tends to slow the process of range expansion, even when suitable habitat is available.

In San Diego County, Southwestern Willow Flycatchers are rare, and primarily occur only along major riparian corridors or in areas of extensive riparian habitat adjacent to large reservoirs. The largest local breeding population is on the extreme upper San Luis Rey River, close to Lake Henshaw. At this locale they occupy Oak Riparian Woodland, unusual behavior that is suspected to be a habitat "artifact" as the result of water management practices that have significantly altered vegetation communities over the last century (Bill Haas, Pers. Comm.). Elsewhere in their range, willow riparian forest is their preferred breeding habitat.

Elsewhere in San Diego County, colonial nesting is also known from the Santa Margarita River (Camp Pendleton). There have been reports of pairs breeding in dense willow forests at the upper end of El Capitan Reservoir and Sweetwater Reservoir. Nesting pairs have also been documented in the Agua Tibia Wilderness and lower San Luis Rey River (Phil Unitt, Pers. Comm.).

There is no riparian habitat of any kind on the project site, nor are there any wetlands (See below). Thus, there is no habitat on site that could support Southwestern Willow Flycatchers. Off the project site to the south, well beyond the minimum distance from water that is used by this species for nesting habitat, the wetland of Cañada Verde is heavily grazed and essentially devoid of suitable riparian habitat.

Due to a complete absence of suitable habitat, Southwestern Willow Flycatchers are not likely to occur, and thus focused surveys for this species are not recommended.

The **Gray Vireo** *Vireo vicinior* is a rare breeding inhabitant of San Diego County chaparral. It breeds in two small, discrete areas in the County: South of the Laguna Mountains and north of Interstate 8, and north of Warner Springs and east of Highway 79 (Unitt 2004). During the breeding season, it is a loud and conspicuous inhabitant of its habitat, with males perching on top of the highest shrubs and incessantly issuing its extremely distinctive song during daylight hours.

Because of the potential for this species to occur on the project site, a focused survey was conducted on 2 June 2006. The survey consisted of playing recordings of Gray Vireo songs, then listening for a response from any birds that may be within hearing distance. The process was



repeated throughout the project site. No Gray Vireos responded to the taped songs, or were otherwise detected. The conclusion is that the species does not breed on the project site. No impacts to this species are anticipated as a result of project implementation.

The **Arroyo Toad** *Bufo californicus* was listed as endangered by the U.S. Fish and Wildlife Service in December, 1994. Reasons for this species decline include habitat loss and predation by introduced bullfrogs. In 1994 there were only 22 known populations of this species. The arroyo toad is restricted to rivers that have shallow, gravelly pools adjacent to sandy terraces. Breeding occurs on large streams with persistent water from late March until mid-June. Eggs are deposited and larvae develop in shallow pools with minimal current and little or no emergent vegetation and with sand or pea gravel substrate overlain with flocculent silt. After metamorphosis (June or July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists (3 to 8 weeks, depending on site and year). Juveniles and adults forage for insects on sandy stream terraces that have nearly complete closure of cottonwoods (*Populus* spp.), oaks (*Quercus* spp.), or willows (*Salix* spp.), and almost no grass and herbaceous cover at ground level. Adult toads excavate shallow burrows on the terraces where they shelter during the day when the surface is damp or during longer intervals in the dry season.

Arroyo toad use of upland habitats, which is where arroyo toads spend the greatest proportion of their lives, is dictated by the requirement that these small (2 to 3-inch) toads must rely on availability of friable substrates to provide their nightly refuge (typically in soils that are composed of no less than 85% sand by composition.) They rarely take refuge in burrows of other species and are poorly equipped to burrow into denser soil types (e.g., clay soils, as well as loamy soils that are less than 80% sand). Breeding sites, therefore, are typically associated with adjacent flood plains (terraces), where arroyo toads spend the greater part of their lives; these terraces support the greatest proportion of non-breeding arroyo toads during the breeding and non-breeding seasons. Long-distance movements of arroyo toads, however, are infrequent and typically documented along easily accessible and open thoroughfares including roads, bicycling, hiking, game trails, and areas cleared of vegetation by wildfire (W. Haas pers. obs.); or along terraces of rivers, streams, and creeks.

The distances that arroyo toads move from terraces adjacent to breeding sites is related to rainfall amount; arroyo toads remain close to breeding sites during the driest years and wander farthest abroad when rainfall is distributed throughout the non-breeding season. Elevated levels of soil moisture apparently favor a broader spectrum of usable substrates while frequent rains allow and probably encourage more frequent and random movements. Movements are also limited by other factors including availability of friable soils - without these arroyo toads desiccate and perish in the absence of rain or extremely high humidity - topography, and vegetation density. Most individuals remain on the sandy terraces that adjoin breeding sites; fewer individuals move into and forage in nearby upland habitats.

Examination of databases from the U.S. Fish and Wildlife Service and U.S. Geological Survey indicate that there are no known arroyo toad breeding locations within a kilometer of the project site. The nearest known location of occurrence in the vicinity is the Upper San Luis Rey River at Indian Flats campground, more than 5.6 miles northwest of the project site (Robert

Fisher, USGS, Pers. Comm.). The project site is separated from the nearest known habitat not only by distance but by dense chaparral hillsides.

A habitat assessment and protocol surveys for this species were conducted By Helix Environmental at the project site in 2004. Results of the surveys were negative. Survey details are provided in Appendix G.

No other sensitive animal species are considered likely to occur on the project site.

### **Wildlife Movement Corridors**

A wildlife corridor can be defined as a linear landscape feature allowing animal movement between two patches of habitat. Connections between extensive areas of open space are integral to maintain regional diversity and population viability. In the absence of corridors, habitats become isolated islands surrounded by development. Fragmented habitats support significantly lower numbers of species and increase the likelihood of local extinction for select species when restricted to small isolated areas of habitat. Areas that serve as wildlife movement corridors are considered biologically sensitive.

Wildlife corridors can be defined in two categories: regional wildlife corridors and local corridors. Regional corridors link large sections of undeveloped land and serve to maintain genetic diversity among wide-ranging populations. Local corridors permit movement between smaller patches of habitat. These linkages effectively allow a series of small, connected patches to function as a larger block of habitat and perhaps result in the occurrence of higher species diversity or numbers of individuals than would otherwise occur in isolation. Target species for wildlife corridor assessment typically include species such as bobcat, mountain lion, and mule deer.

A close look at the topography of the project site reveals no features that are normally considered components of wildlife corridors; *e.g.*, riparian waterways, open areas free of dense vegetation, contiguous linear stands of woodland, *etc.* The project site is flanked on the north and south by such obvious corridors (Cañada Verde and Cañada Agua Caliente (See Figure 3).

There are no natural features that suggest the project site has a significant function as a wildlife corridor. Although several low ridges drainages transect the site, they are choked with dense vegetation and are therefore less desirable. On the north/south axis, wildlife movement is effectively blocked by the Los Tules residential development.

With major wildlife corridors immediately north and south of the project site, it is logical to assume that they offer significantly preferable avenues of wildlife movement compared to the nearly impassable ridges and drainages on the project site. Thus, no significant impacts to wildlife corridors are anticipated as a result of project implementation.

## **WETLANDS**

A wetland survey, based on County survey standards, was conducted throughout the project site during the initial visit on 13 November 2005. This survey revealed no features or characteristics that could be construed as being indicative or suggestive of a wetland or watercourse as defined by the U.S. Army Corps of Engineers (USACE) or any other jurisdictional agency, including the County. A routine USACE wetland delineation (Appendix H) of a specific drainage feature that transects the site from east to west (Figure 5) was conducted on 2 June 2006.

The delineation revealed no evidence of any kind that indicates the presence of a wetland as defined by any jurisdictional agency. This includes any indications of any "Waters of the United States" as defined by the USACE. Thus, no impacts to wetlands will result from project implementation.

## **PERMITTING**

Development of the site as currently proposed will not require issuance of any ancillary permits such as a Habitat Loss Permit (HLP) or permits for wetland impacts as issued by California Department of Fish and Game and U.S. Army Corps of Engineers.

## **SIGNIFICANCE CRITERIA**

Direct impacts occur when biological resources are altered or destroyed during the course of, or as a result of, site development. Examples of such impacts include removal or grading of vegetation, filling wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing. Indirect impacts may include elevated levels of noise or lighting, change in surface water hydrology within a floodplain, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or their potential use by sensitive species. Permanent impacts may result in irreversible damage to biological resources. Temporary impacts are interim changes in the local environment due to clearing or construction and would not extend beyond project-associated activities, including revegetation of temporarily disturbed areas adjacent to native habitats.

The California Environmental Quality Act (CEQA) Guidelines define "significant effect on the environment" as a "substantial, or potentially substantial adverse change in the environment." The CEQA Guidelines further indicate that there may be a significant effect on biological resources if the project will:

- A. Substantially affect an endangered, rare or threatened species of animal or plant or the habitat of the species.

- B. Interfere substantially with the movement of any resident or migratory fish or wildlife species to the extent that it adversely affects the population dynamics of the species.
- C. Substantially diminish habitat for fish, wildlife, or plants.

## PROJECT IMPACTS

### Direct Impacts

As currently proposed, direct impacts from project implementation will result in the loss of 91.3 acres of Red Shank Chaparral, 44.8 acres of Chamise Chaparral, and 5.0 acres of Coast Live Oak Woodland (Table 1). Because a wetland and wildlife corridor (Cañada Verde) is contiguous with the southern boundary of the project site, an area extending 200 feet north of the boundary is proposed for dedication as a biological open space easement. This easement will provide an adequate buffer for the off-site wetland and corridor resources. The proposed easement contains 0.4 acres of Coast Live Oak Woodland and 2.4 acres of Chamise Chaparral.

Table 1. Existing, Impacted, and Preserved Vegetation Communities on the Project Site

PLANT COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE ON-SITE	IMPACT NEUTRAL	IMPACTED OFF-SITE	ACREAGE PRESERVED ON-SITE	MITIGATION REQUIRED* (RATIO)	OFF-SITE (ON-SITE) MITIGATION REQUIRED
Coast Live Oak Woodland	7.6	5.0	0.2	0	2.4	15.0 (3:1)	12.6 (2.6)
Red Shank Chaparral	92.3	91.3	0	0	1.0	91.3 (1:1)	90.3 (1.0)
Chamise Chaparral	47.2	44.8	0	0	2.4	22.4 (0.5:1)	20.0 (2.4)
Urban / Developed	2.6	N / A	N / A	N / A	N / A	N / A	N / A
<b>TOTAL</b>	<b>149.7</b>	<b>141.1</b>	<b>0.2</b>	<b>0</b>	<b>5.8</b>	<b>128.7</b>	<b>122.9 (5.8)</b>

NOTE: Mitigation acreage requirements are adjusted to include credit for preservation of resources on-site at equivalent ratios.

No off-site impacts to sensitive habitats or species will result from implementation of this project, including impacts from mandated fire abatement requirements.

### Indirect Impacts

There is the potential for indirect impacts to occur as a result of site development. The areas where indirect impacts have the potential to occur could extend from the development edge into off-site habitat due to such activities as excessive irrigation, vegetation trampling outside developed areas, and introduction of non-native species (e.g., argentine ants or non-native invasive plant species). These indirect impacts are referred to as "edge effects." There is the potential for indirect impacts on animals as a result of an increase in noise and dust during

development and from vehicle use. There is also the potential for the introduction of irrigation runoff into nearby drainages. These indirect impacts are considered unavoidable due to the size of the development, proposed land uses, and existing surrounding land uses. Due to the large size of the proposed lots, and relatively low density of development, and because there are no biological open space easements in the vicinity, the potential for indirect effects is considered low. The project proposes an open space easement adjacent to on off-site creek. This area will have open space signage, but the density of the vegetation should make fencing unnecessary.

The potential for increased sediment load to the drainages associated with clearing is considered adverse, but can be avoided by use of Best Management Practices (BMPs) to minimize sedimentation.

## MITIGATION

As noted above, the project will impact several sensitive vegetation communities, and preserve 5.8 acres of sensitive vegetation communities within proposed Biological Open Space Easements on-site. The project will be mitigating off-site for impacts to sensitive native vegetation communities at the ratios identified in Table 1.

The project will result in the loss of 5.0 acres of Coast Live Oak Woodland. Mitigation will take place at a 3:1 ratio, resulting in the need for 15.0 acres of comparable habitat. Conditions of approval will require that a Biological Open Space Easement be placed over 2.4 acres of onsite Coast Live Oak Woodland and 12.6 acres be purchased, preserved, and managed off site. Loss of 91.3 acres of Red Shank Chaparral will be mitigated by 90.3 acres of like functioning habitat purchased, preserved, and managed off-site, and by a Biological Open Space Easement be placed over 1.0 acres of Red Shank Chaparral onsite. Loss of 44.8 acres of Chamise Chaparral will be mitigated by 20.0 acres of like functioning habitat purchased, preserved, and managed off-site, and by a Biological Open Space Easement placed over 2.4 acres of Chamise Chaparral onsite.

It is anticipated that the off-site portion of the mitigation will be accomplished either by purchasing inholdings within the Cleveland National Forest or Anza Borrego State Park, or through an approved mitigation bank. If an inholding is purchased the lands will be either (1) transferred to a governmental agency charged with conservation of natural resources via fee title (with demonstration of long term management capabilities) or (2) dedicated in a conservation or open space easement to the County and the land will be managed through an approved Resource Management Plan to the satisfaction of the Director of Planning and Land Use.

Limitations on construction activities during the bird nesting season are recommended to reduce impacts to avian resources. If it is determined by a qualified biologist that no nesting is occurring within 300 feet (for Passerine birds) or 500 feet (for raptors) of construction activity, such activities may proceed.

Permanent signage is required along the open space easements. Fencing is not necessary because the extremely dense nature of the vegetation surrounding the project site would preclude human access in most cases, and fencing would restrict wild animal movement.

**The acquisition and long-term stewardship management of off-site mitigation lands, and other recommended mitigation measures will reduce the impacts resulting from project implementation to below a level of significant because it will provide equal or better long-term habitat value and function in contributing to federal or state lands resources.**

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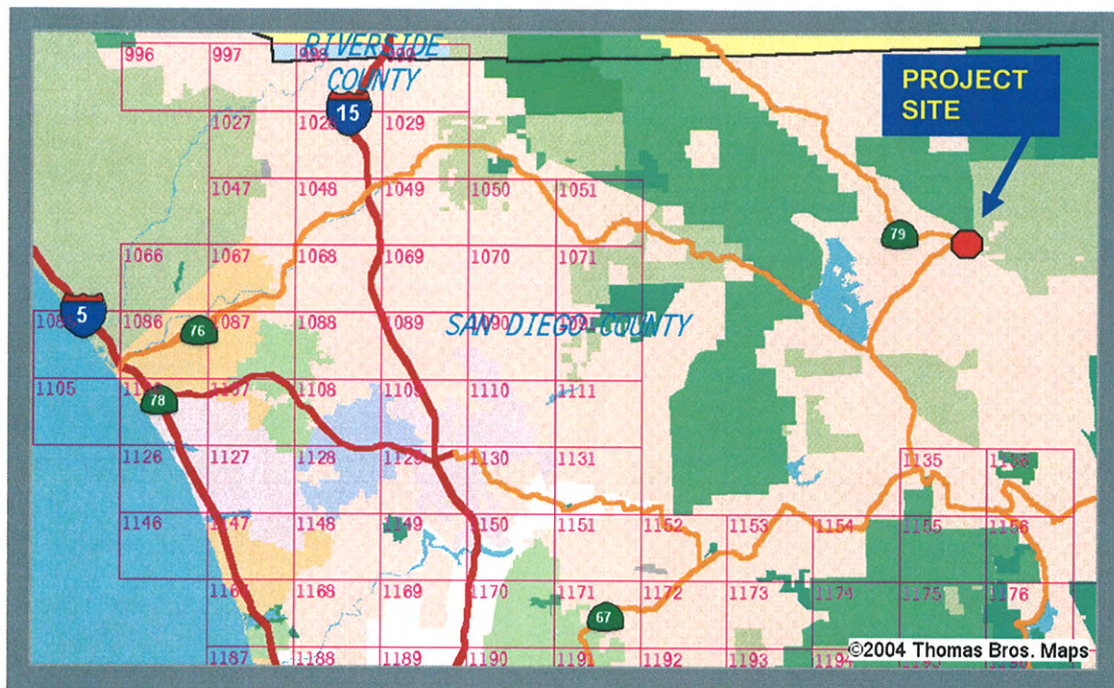


Figure 1. Location of project site in regional context. Thomas Bros. Map page #409, K8.

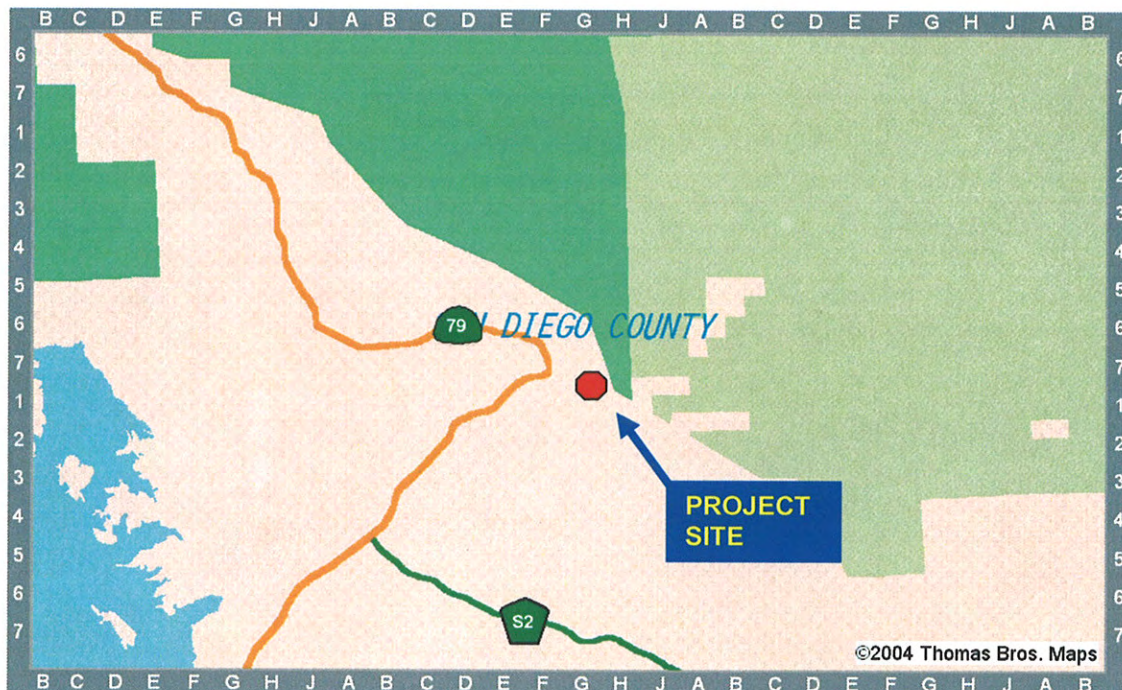


Figure 2. Detail location map of project site. Thomas Bros. Map page #409, K8.



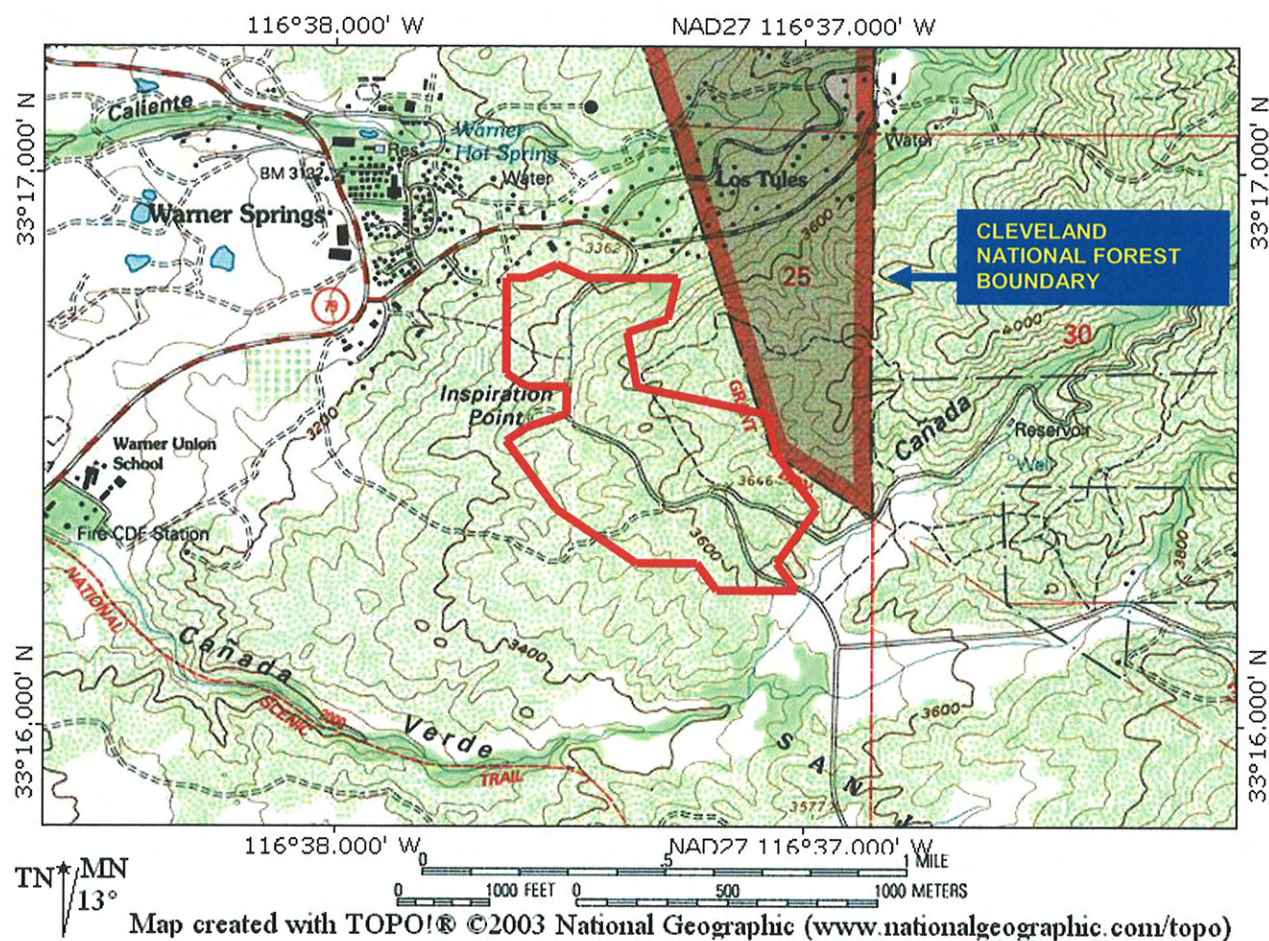


Figure 3. Topographical map showing project site location (Approximate boundaries in red). Taken from USGS Hot Springs Mountain 7.5 minute series quadrangle.



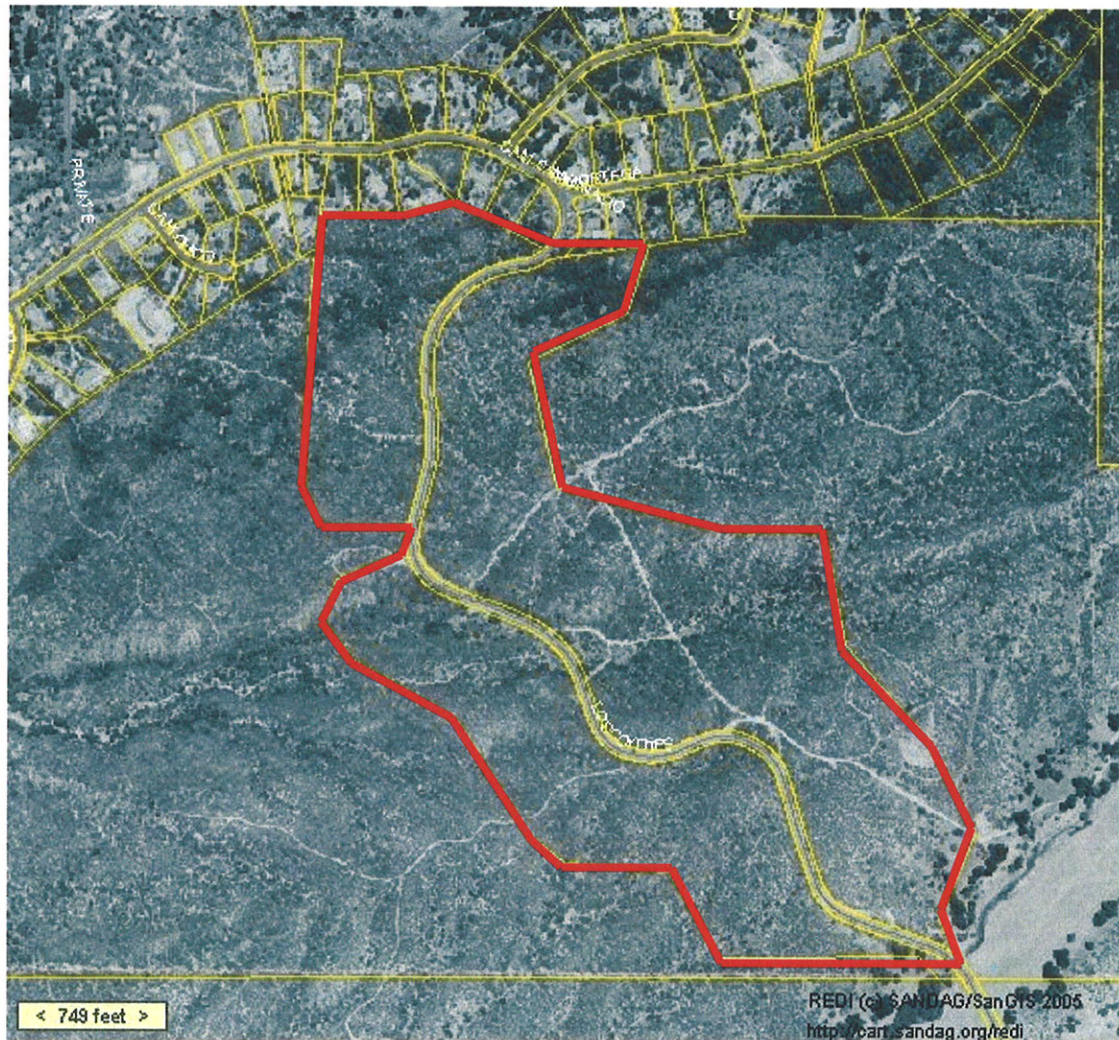


Figure 4. Satellite photograph of project site (photograph by SANDAG/SanGIS 2005), showing parcel boundaries for project site (outlined in red, in center) and adjacent properties in yellow. Top of photo is true north.



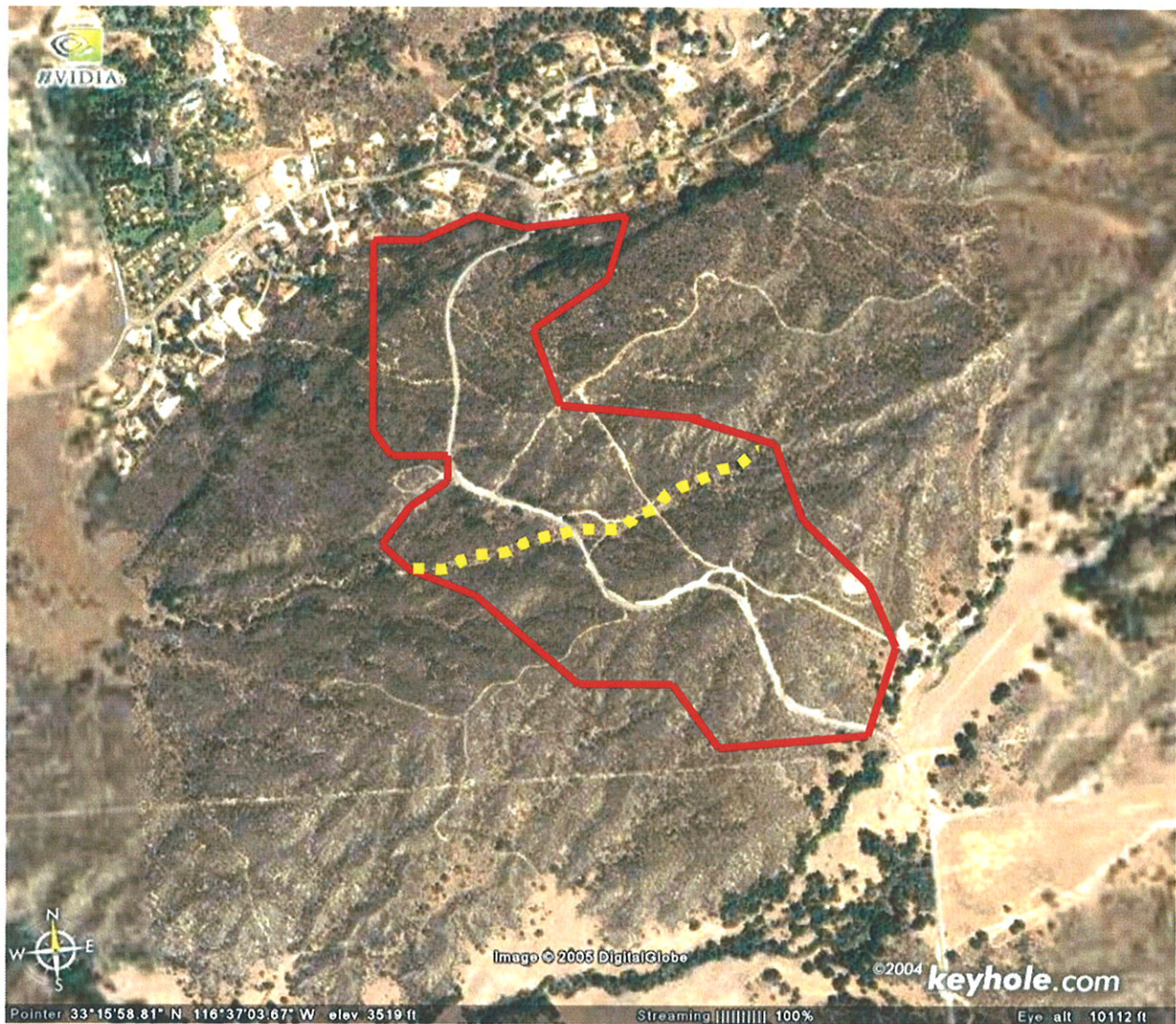


Figure 5. Close-up color satellite photograph of the project site showing approximate parcel boundary (outlined in red). Yellow dotted line indicates drainage feature afforded special attention to investigate for the possible presence of wetlands.



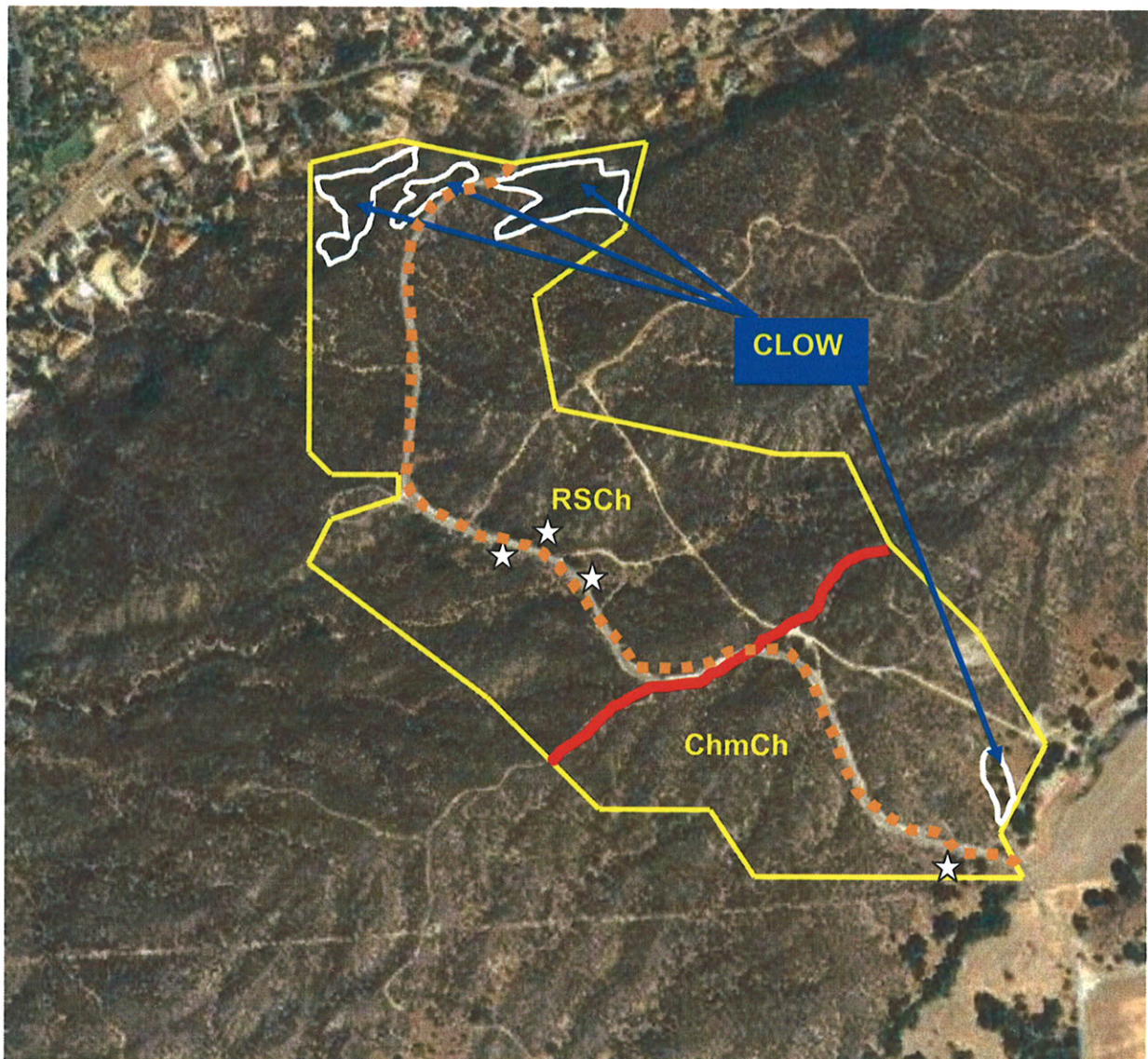


Figure 6. Vegetation Map. Yellow line indicates project boundary. Red line divides area of Redshank Chaparral Habitat from Chamise Chaparral habitat.

CLOW = Coast Live Oak Woodlands (Holland Code 711623)

ChmCh = Chamise Chaparral (Holland Code 37210)

RSCh = Redshank Chaparral (Holland Code 37300)

Orange dotted line = Urban / Developed Habitat (Holland Code 12000) [Existing paved road]

Stars indicate individual Engelmann Oak Trees

See Table 1 and Appendix I for proposed Open Space areas and additional information.



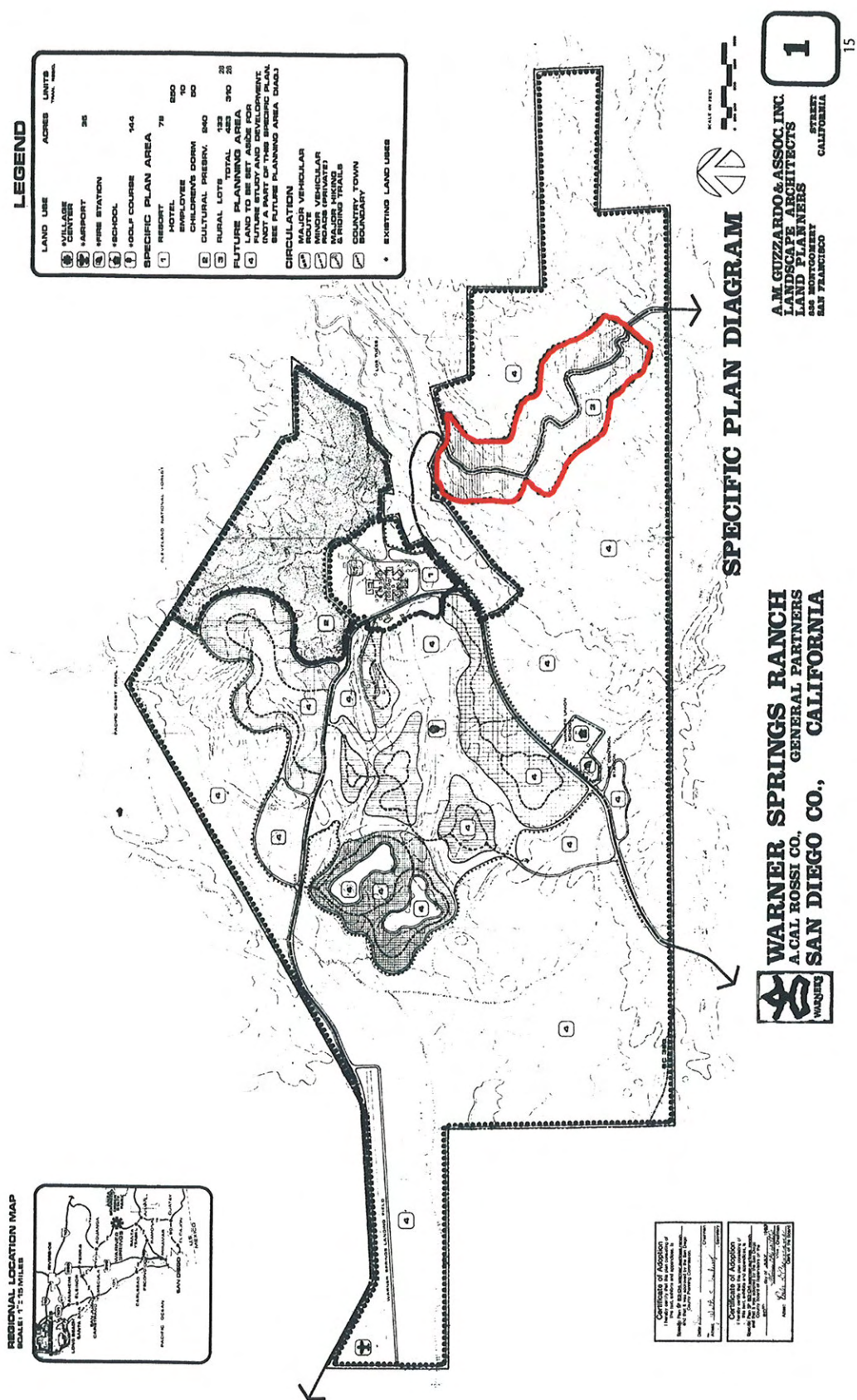


Figure 7. Map of Specific Plan area showing location of project site (outlined in red).

**APPENDIX A****PLANT SPECIES OBSERVED ON THE PROJECT SITE**Scientific NameCommon Name**Dicotyledoneae**

## Amaranthaceae - Amaranth Family

*\*Amaranthus albus*

White Tumbleweed

## Anacardiaceae - Sumac Family

*Rhus ovata*

Sugar Bush

*Rhus trilobata* var. *pilosissima*

Squaw Bush

*Toxicodendron diversilobum*

Poison Oak

## Asteraceae (Compositae) -Sunflower Family

*Acourtia microcephala*

Sacapellote

*Ambrosia acanthicarpa*

Sand-bur

*Artemisia dracunculus*

Tarragon

*Artemisia tridentata* ssp. *tridentata*

Basin Sagebrush

*Baccharis sarothroides*

Broom Baccharis

*Brickellia californica*

Brickellbush

*Conyza canadensis*

Horseweed

*Encelia farinosa*

Brittle-bush

*Eriophyllum confertiflorum*

Flat-topped Golden Yarrow

*Gnaphalium californicum*

California Everlasting

<i>Gnaphalium canescens</i>	Fragrant Everlasting
<i>Gutierrezia californica</i>	California Matchweed
<i>Hazardia squarrosa</i> var. <i>grindelioides</i>	Saw-toothed Goldenbush
<i>Lessingia filaginifolia</i> var. <i>incana</i>	San Diego Sand Aster
<i>Porophyllum gracile</i>	Odora
<i>Stephanomeria exigua</i>	Small Wreath-plant
Boraginaceae - Borage Family	
<i>Cryptantha</i> sp.	Cryptantha
<i>Emmenanthe penduliflora</i>	Whispering Bells
Brassicaceae (Cruciferae) - Mustard Family	
* <i>Brassica</i> sp.	Mustard
* <i>Hirschfeldia incana</i>	Perennial Mustard
Cactaceae - Cactus Family	
<i>Opuntia littoralis</i>	Coastal Prickly Pear
<i>Opuntia phaeacantha</i>	Cholla
Caprifoliaceae - Honeysuckle Family	
<i>Lonicera subspicata</i> var. <i>denudata</i>	Honeysuckle
<i>Sambucus mexicana</i>	Elderberry
Cucurbitaceae - Gourd Family	
<i>Cucurbita foetidissima</i>	Calabazilla
<i>Marah macrocarpus</i>	Wild Cucumber
Ericaceae - Heath Family	
<i>Arctostaphylos glandulosa</i> ssp. <i>glandulosa</i>	Eastwood Manzanita
<i>Arctostaphylos glauca</i>	Bigberry Manzanita



## Euphorbiaceae -Spurge Family

*Croton californicus* var. *californicus*

Croton

*Eremocarpus setigerus*

Turkey Mullein, Dove Weed

## Fabaceae (Leguminosae) - Pea Family

*Lotus scoparius* ssp. *scoparius*

Deerweed

*Lotus strigosus* var. *hirtella*

Hirsute Lotus

## Fagaceae - Oak Family

*Quercus agrifolia* var. *agrifolia*

Coast Live Oak

*Quercus berberidifolia*

Scrub Oak

*Quercus engelmannii*

Engelmann Oak

## Garryaceae - Silk-tassel Family

*Garrya flavescens*

Ashy Silktassel

## Geraniaceae - Geranium Family

*\*Erodium cicutarium*

Red-stem Filaree

## Hydrophyllaceae - Waterleaf Family

*Eriodictyon trichocalyx* ssp. *trichocalyx*

Yerba Santa

## Lamiaceae (Labiatae) - Mint Family

*Salvia apiana*

White Sage

*Salvia columbariae* var. *columbariae*

Chia

## Nyctaginaceae - Four O'Clock Family

*Mirabilis multiflora* var. *pubescens*

Big Four O'Clock

## Oleaceae - Olive Family

*Fraxinus velutina*

Arizona Ash

## Papaveraceae - Poppy Family

*Romneya coulteri*

Coulter's Matilija Poppy

## Polemoniaceae - Phlox Family

*Eriastrum sapphirinum*

Blue Wool-star

*Navarretia hamata*

Skunkweed

## Polygonaceae - Buckwheat Family

*Eriogonum fasciculatum* ssp. *foliolosum*

Interior Flat-top Buckwheat

*Rumex salicifolius*

Willow-leaved Dock

## Rhamnaceae - Buckthorn Family

*Ceanothus crassifolius*

Hoaryleaf Ceanothus

*Ceanothus greggii* var. *perplexans*

Cupleaf Ceanothus

*Ceanothus leucodermis*

Whitebark Ceanothus

## Rosaceae - Rose Family

*Adenostoma fasciculatum*

Chamise

*Adenostoma sparsifolium*

Ribbon Bush, Red Shank

*Cercocarpus betuloides*

Mountain Mahogany

*Heteromeles arbutifolia*

Toyon

*Prunus ilicifolia*

Holly-leaved Cherry

*Rosa californica*

California Wild Rose

## Rubiaceae - Madder Family

*Galium* sp.

Bedstraw

## Salicaceae - Willow Family

*Salix laevigata*

Red Willow

## Scrophulariaceae-Figwort Family

*Cordylanthus filifolius*

Dark-tip Bird's Beak

*Penstemon centranthifolius*

Scarlet bugler

*Penstemon spectabilis*

Showy penstemon

## Solanaceae - Nightshade Family

*Datura wrightii*

Jimson Weed

## Viscaceae - Mistletoe Family

*Phoradendron* sp.

Mistletoe

**Monocotyledoneae**

## Agavaceae - Agave Family

*Yucca schidigera*

Spanish Dagger

*Yucca whipplei* ssp. *whipplei*

Our Lord's Candle

## Poaceae (Gramineae) - Grass Family

\**Avena* sp.

Wild Oats

\**Bromus diandrus*

Ripgut Grass

\**Bromus madritensis* ssp. *rubens*

Red Brome

\**Bromus tectorum*

Cheat grass

*Elymus* sp.

Wildrye

*Muhlenbergia rigens*

Deergrass

*Nasella lepida*

Foothill Needle Grass

\**Vulpia myuros*

Rat tail grass

\* = Non-native species

**APPENDIX B****WILDLIFE SPECIES OBSERVED OR DETECTED  
ON THE SITE****BIRDS**

Sharp-shinned Hawk	<i>Accipiter striatus</i>
Red-shouldered Hawk	<i>Buteo lineatus</i>
Mourning Dove	<i>Zenaida macroura</i>
California Quail	<i>Callipepla californica</i>
Western Scrub-Jay	<i>Aphelocoma californica</i>
Common Raven	<i>Corvus corax</i>
Lesser Goldfinch	<i>Carduelis psaltria</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>

**MAMMALS**

Mule Deer <i>Odocoileus hemionus fuliginata</i>	Scats
Coyote <i>Canis latrans</i>	Scats
Southern Pocket Gopher <i>Thomomys bottae</i>	Burrows
Dusky-footed Woodrat <i>Neotoma fuscipes macrotis</i>	Nests

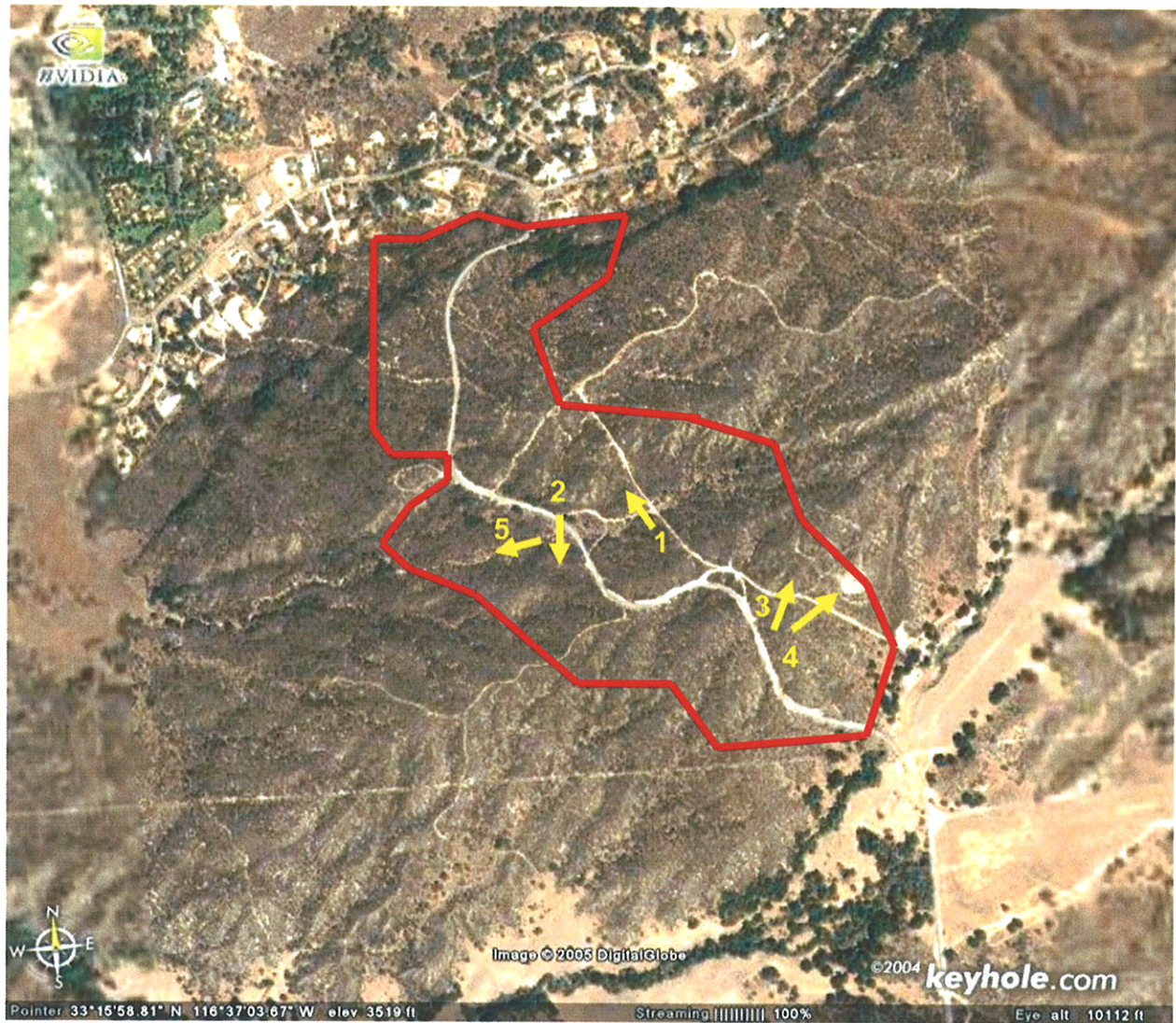
**AMPHIBIANS AND REPTILES**

Western Fence Lizard <i>Sceloporus occidentalis</i>
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## **APPENDIX C**

### **PHOTOGRAPHS OF THE PROJECT SITE**

All photographs taken 2005 & 2006 by W.T. Everett



### PHOTOGRAPH INDEX

Yellow arrows and numbers indication the locations and directions from which the following photographs were taken





Photograph 1. View of typical dense Red Shank Chaparral on the project site.



Photograph 2. View of typical dense Red Shank Chaparral on the project site.





Photograph 3. View looking northwest from near the southwest corner of the project site.



Photograph 4. View looking north from near the southern boundary of the project site. This area contains Chamise Chaparral.





Photograph 5. Photograph of drainage feature determined not to be a wetland.

## APPENDIX D

### COUNTY LIST OF SENSITIVE SPECIES WITH POTENTIAL TO OCCUR ON THE PROJECT SITE

#### **Legend**

##### **Status**

- 1 = Federally Endangered
- 2 = Federally Threatened
- 3 = State Endangered
- 4 = State Threatened
- 5 = State Rare
- 6 = MSCP Narrow Endemic
- 7 = Not State or Federal Listed
- 8 = County Sensitive Plant List Designation (A-D)
- Ext = Extirpated

##### **Potential to Occur On-site**

- L = Low
- M = Moderate
- H = High
- U = Unknown (Sufficient data are not available on the status, distribution, abundance, or natural history of the species to make a reliable determination of the probability of occurring on-site.)

##### **Rationale**

- 1 = Would likely have been detected during focused surveys if present
- 2 = Appropriate suitable habitat not present on-site
- 3 = Insufficient natural history information is available to determine is presence is likely

Scientific Name	Common Name	Status	Observed On-Site (Y or N)	Potential to Occur Onsite - Rationale	Habitat Preferences
<i>Astragalus oocarpus</i>	San Diego Milkvetch	7, 8A	N	L - 1	Oak Woodland, Mixed Chaparral
<i>Astragalus pachypus jeageri</i>	Jaeger's Locoweed	7, 8A	N	L - 1	Coastal Sage Scrub, Grassland, Mixed Chaparral, Chamise Chaparral
<i>Androsace longate acuta</i>	California androsace	7, 8D	N	L - 1	Grassland
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	7, 8A	N	L - 1	Grassland, Riparian, Oak Woodland, Chamise Chaparral, Vernal Pools
<i>Calochortus dunni</i>	Dunn's Mariposa Lily	5, 8A	N	L - 2	Mixed Chaparral, Chamise Chaparral, Closed Cone Forest
<i>Chorizanthe leptotheca</i>	Peninsula Spineflower	7, 8D	N	L - 1	Oak Woodland, Chamise Chaparral
<i>Clarkia delicata</i>	Campo clarkia	7, 8A	N	L - 1	Oak Woodland
<i>Dienandra (Hemizonia) mohavensis</i>	Mojave tarplant		N	L - 1	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
<i>Ericameria cuneata macrocephala</i>	Laguna mountain goldenbush	7, 8A	N	L - 1	Mixed Chaparral
<i>Eriogonum foliosum</i>	Leafy buckwheat	7, 8A	N	L - 1	Mixed Conifer
<i>Gilia caruifolia</i>	Caraway leaved gilia	7, 8D	N	L - 1	Grassland, Chamise Chaparral, Mixed Conifer
<i>Grindelia hirsutula hallii</i>	Hall's gumplant	7, 8A	N	L - 1	Grassland, Oak Woodland, Mixed Chaparral
<i>Heterotheca sessilifolia sanjacintensis</i>	San Jacinto golden aster	7, 8D	N	L - 1	Mixed Chaparral, Mixed Conifer
<i>Heuchera rubescens versicolor</i>	San Diego County alum root	7, 8B	N	L - 1	Mixed Chaparral, Mixed Conifer

<i>Hulsea californica</i>	California hulsea	7, 8A	N	L - 1	Mixed Chaparral
<i>Hulsea vestita callicarpa</i>	Beautiful hulsea	7, 8D	N	L - 1	Mixed Chaparral, Chamise Chaparral
<i>Lessingia glandulifera tomentosa</i>	Warner Springs lessingia	7, 8A	N	L - 1	Grassland
<i>Lilium humboldtii ocellatum</i>	Ocellated Humboldt lily	7, 8D	N	L - 1	Riparian, Mixed Conifer, Pinon Juniper
<i>Linanthus orcutti</i>	Orcutt's linanthus	7, 8A	N	L - 1	Mixed Conifer
<i>Mimulus clevelandii</i>	Cleveland's monkey flower	7, 8D	N	L - 1	Mixed Chaparral, Oak Woodland, Mixed Conifer
<i>Mimulus diffuses</i>	Palomar monkey flower	7, 8D	N	L - 1	Mixed Chaparral, Oak Woodland, Mixed Conifer
<i>Monardella macrantha kallii</i>	Hall's monardella	7, 8A	N	L - 1	Mixed Conifer
<i>Monardella nana leptosiphon</i>	San Felipe monardella	7, 8A	N	L - 1	Mixed Chaparral, Mixed Conifer, Pinon Juniper
<i>Pentachaeta aurea</i>	Golden-rayed pentachaeta	7, 8D	N	L - 1	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
<i>Quercus engelmannii</i>	Engelmann oak	7, 8D	Y	H	Riparian, Oak Woodland
<i>Rupertia rigida</i>	Parish psoralea	7, 8D	N	L - 1	Mixed Chaparral
<i>Scutellaria bolanderi austromontana</i>	Southern skullcap	7, 8A	N	L - 2	Riparian, Mixed Conifer
<i>Selaginella asprella</i>	Bluish spike moss	7, 8D	N	L - 2	Mixed Chaparral
<i>Helminthoglypta traski coelata</i>	Peninsular Range shoulderband snail	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral
<i>Danaus plexippus</i>	Monarch butterfly	7	N	L - 2	Grassland, Oak Woodland, Montane Meadow
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	1	N	L - 2	Coastal Sage Scrub, Grassland, Chamise Chaparral, Desert Scrub, Vernal Pools

<i>Gila orcutti</i>	Arroyo chub	7	N	L - 2	Riparian
<i>Oncorhynchus mykiss</i>	Rainbow trout – Steelhead form	7	N	L - 2	Riparian
<i>Bufo microscaphus californicus</i>	Arroyo toad	1, 6	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Montane Meadow
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral, Mixed Conifer
<i>Cnemidophorus hyperythrus</i>	Orange- throated whiptail	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral
<i>Ensatina eschscholtzii klauberi</i>	Large-blotched salamander	7	N	L - 2	Riparian, Oak Woodland, Mixed Conifer
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
<i>Sceloporus graciosus vandenburgianus</i>	Southern sagebrush lizard	7	N	L - 2	Mixed Chaparral, Mixed Conifer, Pinon Juniper
<i>Myotis evotis</i>	Long eared myotis	7	N	U - 3	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon Juniper, Montane Meadow

<i>Myotis thysanodes</i>	Fringed myotis	7	N	U - 3	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon Juniper, Montane Meadow
<i>Myotis yumanensis</i>	Yuma myotis	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
<i>Euderma maculatum</i>	Spotted bat	7	N	U - 3	Riparian, Mixed Conifer, Closed Cone Forest, Pinon Juniper, Desert Wash, Montane Meadow
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	7	N	L - 2	Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
<i>Antrozous pallidus</i>	Pallid bat	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow

<i>Lasiurus blossevillii</i>	Western red bat	7	N	U - 3	Riparian, Oak Woodland, Mixed Conifer, Closed Cone Forest, Montane Meadow
<i>Eumops perotis californicus</i>	Greater western mastiff bat	7	N	L - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego pocket mouse	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral, Desert Scrub, Salt or Alkali Marsh

<i>Taxidea taxus</i>	American badger	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
<i>Felis concolor</i>	Mountain lion	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
<i>Buteo lineatus</i>	Red-shouldered Hawk	7	Y	H	Riparian, Oak Woodland
<i>Accipiter cooperi</i>	Cooper's Hawk	7	N	M	Grassland, Riparian, Oak Woodland
<i>Aquila chrysaetos</i>	Golden eagle	6	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper
<i>Accipiter striatus</i>	Sharp-shinned Hawk	7	N	L - 2	Coastal Sage Scrub, Oak Woodland, Mixed Conifer
<i>Falco mexicanus</i>	Prairie Falcon	7	N	L - 2	Desert Scrub, Desert Wash
<i>Cathartes aura</i>	Turkey Vulture	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest



<i>Oreortyx pictus eremophila</i>	Mountain Quail	7	N	L - 2	Mixed Chaparral, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
<i>Melanerpes lewis</i>	Lewis' Woodpecker	7	N	L - 2	Oak Woodland, Mixed Conifer
<i>Sialia mexicana</i>	Western Bluebird	7	N	L - 2	Riparian, Oak Woodland
<i>Progne subis</i>	Purple Martin		N	L - 2	Grassland, Riparian, Mixed Conifer
<i>Empidonax trailii extimus</i>	Southwestern Willow Flycatcher	1	N	L - 2	Riparian
<i>Vireo vicinior</i>	Gray Vireo	7	N	L - 2	Mixed Chaparral
<i>Dendroica petechia brewersti</i>	Yellow Warbler	7	N	L - 2	Riparian

## APPENDIX E

### POTENTIALLY OCCURRING SPECIFIC RARE PLANT SPECIES DATA

The following is synoptic information on specific sensitive plant species listed in the County scoping letter of May 25, 2006. Directed surveys for these species were conducted during site visits as appropriate for the season.

#### ***Androsace elongata acuta* - California androsace**

Annual herb

Blooms: Mar-June

Elevation: 150-1200m

Habitat: Chaparral, Valley Foothill Grassland, Coastal Sage Scrub, Cis-montane  
Woodland

#### ***Astragalus pachypus jaegeri* - Jaeger's locoweed**

Perennial Shrub

Blooms: Dec-June

Elevation: 365-915m

Habitat: Chaparral, Valley Foothill Grassland, Coastal Sage Scrub

#### ***Deinandra mohavensis* - Mohave tarweed**

Annual herb

Blooms: July-Oct

Elevation: 640-1600m

Habitat: Chaparral, Coastal Sage Scrub, Riparian Scrub, Joshua Tree Woodland

#### ***Eriogonum foliosum* - Leafy eriogonum**

Annual herb

Blooms: July-Oct

Elevation: 1200-2200m

Habitat: Chaparral, Lower Montane Coniferous Forest, Pinyon Juniper Woodland

***Heterotheca sessiliflora sanjacintensis* - San Jacinto golden aster**

Perennial herb

Blooms: Mar-July

Elevation: <2700m

Habitat: Grassland, Oak Woodland

***Lessingia glandulifera tomentosa* - Warner Springs lessingia**

Annual herb

Blooms: Sept-Oct

Elevation: 870-1200m

Habitat: Chaparral, Grassland

Soils: Metavolcanic and gabbroic soils, rocky silt loam

***Linanthus orcuttii* - Orcutt's linanthus**

Annual herb

Blooms: May-June

Elevation: 915-2145m

Habitat: Chaparral

***Monardella macrantha hallii* - Hall's monardella**

Perennial herb

Blooms: July-Aug

Elevation: 730-2195m

Habitat: Lower Montane Coniferous Forest, Chaparral, Valley Foothill Grassland, Cis-Montane Woodland, Broadleaf Upland Forest, Lower Montane Coniferous Forest

Soils: Coarse Sandy Loams

***Monardella nana leptosiphon* - San Felipe monardella**

Perennial herb

Blooms: June-July

Elevation: 1200-1855m

Habitat: Lower Montane Coniferous Forest, Chaparral

Soils: Crouch Coarse Sandy Loams

## **APPENDIX F**

### **RESULTS OF 2004 SURVEYS FOR QUINO CHECKERSPOT BUTTERFLY**

2004 Report  
U.S. Fish and Wildlife Service Protocol Level  
Presence/Absence Surveys for the  
Quino Checkerspot Butterfly  
(*Euphydryas editha quino*)

Prepared for:


Warner Springs Estates,  
Warner Springs, California  
(HELIX Job No. WSE-01)

Prepared by:

HELIX Environmental Planning, Inc.  
8100 La Mesa Blvd., Suite 150  
La Mesa, CA 91941-6476  
(Threatened/Endangered Species Permit: TE778195)

June 9, 2004

Surveys performed by:



Brian Parker

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<u>Letter</u>	<u>Title</u>
A	Summary of Field Survey Conditions and Results

## INTRODUCTION

This report documents the results of HELIX Environmental Planning, Inc.'s (HELIX's) 2004 quino checkerspot butterfly (QCB; *Euphydryas editha quino*) surveys on the Warner Springs Estates project site. The surveys were performed under HELIX's Threatened/Endangered species permit (TE778195).

The irregularly shaped Warner Springs Estates project site is situated on 150 acres of undeveloped land in north-central San Diego County. The site lies on either side of Los Coyotes Road approximately one-quarter mile east of Highway 79 and just south and west of the Los Coyotes Indian Reservation in Warner Springs, California. It is located within the San Jose Del Valle Grant within Township 10 South, Range 3 East, on the USGS 7.5-minute Warner Springs and Hot Springs Mountain Quadrangles.

## METHODS

HELIX biologist Brian Parker conducted an assessment of potential QCB habitat on the project site on March 23, 2004. Based on this habitat assessment approximately 140 acres was excluded from the survey area, largely as either closed-canopy riparian habitat or dense chaparral (Figure 1).

All non-excluded areas, totaling approximately 10 acres were surveyed in accordance with U.S. Fish and Wildlife Service survey protocol (USFWS 2002a) and Survey Recommendations (USFWS 2002b) for the QCB. Six weekly protocol surveys were performed in non-excluded areas by HELIX biologist Brian Parker between March 23 and April 29, 2004. Subpermittee Dale Ritenour, who is a "supervised individual" on the HELIX permit, assisted Mr. Parker on the final survey. Surveys consisted of walking through appropriate habitat and identifying all butterflies observed with the aid of binoculars. All flowering plants were identified, with particular attention paid to potential QCB larval host plants and nectar sources, which were noted when observed.

Dates, times, and weather conditions at the beginning and ending of each survey are presented in Appendix A. Copies of field notes and lists of butterflies observed during each protocol survey are provided as Appendices B and C, respectively.

Nomenclature for this report is taken directly from Holland (1986) for vegetation communities, and Hickman (1993) and Beauchamp (1986) for plants. Identification of butterflies was based on personal knowledge, museum specimens, and field guides by Glassberg (2001) and Garth and Tilden (1986).

## RESULTS

The Warner Springs Estates property is dominated by redshank chaparral, with areas of coast live oak woodland, and patches of granitic southern mixed chaparral and non-native grassland in the southeastern corner. The survey area consisted of open areas within the redshank chaparral and granitic southern mixed chaparral, dirt trails, and non-native grassland.

No potential QCB larval host plants were observed during the protocol surveys. However, a number of potential nectaring flowers were present in large numbers. These include common goldfields (*Lasthenia californica*), fiddleneck (*Amsinckia menziesii* var. *intermedia*), and popcornflower (*Cryptantha/Platgiobothrys* sp.).

No QCB were detected. It is likely that the soils present in the project vicinity are too rocky and sandy (largely Tollhouse rocky coarse sandy loam - eroded) to support larval host plants in sufficient numbers to sustain a population of QCB.



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- Glassberg, Jeffrey. 2001. Butterflies Through Binoculars the West. Oxford University Press, Oxford.
- Hickman, J. C. (Ed.). 1993. The Jepson Manual, Higher Plants of California. University of California Press, Berkeley.
- Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California. The Resources Agency.
- U.S. Fish and Wildlife Service (USFWS). 2002a. Quino Checkerspot Butterfly (*Euphydryas editha quino*) 2002 Survey Protocol Information. February.
- 2002b. Quino Checkerspot Butterfly 2002 Survey Recommendations. February 12.

**Appendix A**  
**SUMMARY OF FIELD SURVEY CONDITIONS AND RESULTS**

Site Visit	Date	Survey Time (24 hr; start/end)	Weather Conditions*	
			Start	End
1	March 23, 2004	1345/1440	0cc, 78°F, wind 2-4 mph	5cc, 80°F, wind 2-4 mph
2	March 31, 2004	1135/1245	75cc, 74°F, wind 2-8 mph	75cc, 77°F, wind 5-12 mph
3	April 8, 2004	1100/1225	10cc, 72°F, wind 0 mph	10cc, 77°F, wind 2-4 mph
4	April 14, 2004	1145/1320	0cc, 75°F, wind 2-6 mph	0cc, 77°F, wind 0-4 mph
5	April 21, 2004	1145/1320	0cc, 68°F, wind 0-2 mph	0cc, 70°F, wind 0-4 mph
6 <sup>†</sup>	April 29, 2004	1200/1340	10cc, 69°F, wind 0-6 mph	40cc, 71°F, wind 2-6 mph

\*Cloud cover (cc) is given as a percent; temperatures were taken on the ground in the shade; wind speed was measured at 4 to 6 feet above ground level.

<sup>†</sup> Accompanied by Dale Ritenour during survey.

## **APPENDIX G**

### **RESULTS OF 2004 SURVEYS FOR ARROYO TOAD**

July 30, 2004

WSE-01

Mr. Daniel Marquez  
U.S. Fish and Wildlife Service  
6010 Hidden Valley Rd.  
Carlsbad, CA 92009

Subject: Arroyo Toad Survey Report for the Warner Springs Estates Project

Dear Mr. Marquez:

This report documents results of the year 2004 arroyo toad (*Bufo californicus*) presence/absence survey performed by HELIX Environmental Planning, Inc. (HELIX) for the Warner Springs Estates project.

#### **SITE DESCRIPTION AND LOCATION**

The approximately 150-acre Warner Springs Estates project site is located in Warner Springs, San Diego County, California (Figure 1) on either side of Los Coyotes Road approximately 0.25 mile east of Highway 79 just south and west of the Los Coyotes Indian Reservation. The site is within the San Jose Del Valle Grant, Township 10 South, Range 3 East on the U.S. Geological Survey 7.5-minute Warner Springs and Hot Springs Mountain Quadrangles (Figure 2). The area lies entirely outside of the County of San Diego's Multiple Species Conservation Program Subarea Plan boundary and the North County Multiple Habitat Conservation Program.

The irregularly shaped site is steep with largely west- and southwest-facing slopes draining into Canada Verde to the south. On-site elevations range from approximately 3,180 to 3,720 feet above mean sea level. Soils are mapped largely as Tollhouse rocky coarse sandy loam with a small portion of Crouch rocky coarse sandy loam in the northeastern corner of the site (Bowman 1973).

#### **EXISTING CONDITIONS**

The Warner Springs Estates site supports six vegetation communities (Figure 3): coast live oak woodland, granitic southern mixed chaparral (including disturbed), red shank chaparral, non-native grassland, disturbed habitat, and urban/developed.

Breeding arroyo toads prefer slow-moving streams with side pools or eddies under open riparian canopies particularly in areas with sandy shores. Although no riparian areas occurs on site, Canada Verde, which is off site to the south, is a wide drainage that supports open riparian vegetation, which is suitable to support breeding arroyo toads.

## METHODS

Using the latest (1999) U.S. Fish and Wildlife Service arroyo toad protocol, focused surveys on the Warner Springs Estates project were performed in six nighttime site visits during spring and early summer 2004 (Table 1). A daytime survey and habitat assessment was performed prior to the first nocturnal survey to determine areas with the highest potential to support toads and to establish effective survey routes.

<b>Table 1</b> <b>TOAD SURVEY INFORMATION</b>				
<b>Survey Date</b>	<b>Survey Time</b>	<b>Surveyors</b>	<b>Survey Conditions</b>	
			<b>Weather*</b>	<b>Lunar Phase</b>
April 22, 2004	2000-2100	Brian Parker Roger Ditrack	Clear, 57-60°F, wind 0-3 mph	Waxing crescent
May 30, 2004	2045-2135	Brian Parker	Clear, 60-64°F, wind 0-2 mph	Waxing gibbous
June 9, 2004	2100-2145	Brian Parker Seth Shreve	Overcast, 55-62°F, wind 0-2 mph	Last quarter
June 16, 2004	2105-2200	Brian Parker Sally Trnka	Clear, 58-63°F, wind 0-2	Waning crescent
June 23, 2004	2130-2220	Brian Parker Seth Shreve	Clear, 61-70°F, wind 0-1 mph	Waxing crescent
June 30, 2004	2115-2150	Brian Parker Seth Shreve	Partly cloudy, 56-58°F, wind 0-2 mph	Waxing gibbous

\*Weather measurements include cloud cover, air temperature, and wind speed.

Because the only riparian habitat in the project vicinity is located along Cañada Verde off site to the south, toad survey areas on site included openings in coastal sage scrub, as well as grassland, and disturbed areas in the southern portion of the property. Canada Verde crosses under a road off site, so it was also possible to survey this area from the road without trespassing. All survey areas were inspected on foot with the use of flashlights and headlamps to detect eyeshine. Researchers paused at intervals to listen for moving or calling arroyo toads. All anurans detected were approached slowly and identified.

During the arroyo toad survey period, full moons occurred on May 4 and June 3. Because arroyo toads are generally less active under the bright illumination of a full moon, no site



visits occurred within 3 days of a full moon to maximize the probability of detecting arroyo toads if present.

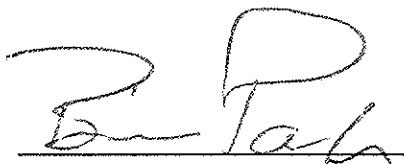
## RESULTS

No arroyo toads were detected during focused surveys. In fact, calls of the Pacific treefrog (*Pseudacris regilla*) were detected only during the first survey, and no sign of western toads (*Bufo boreas*) was detected during any of the surveys.

According to the California Department of Fish and Game's (CDFG's) Natural Diversity Database, the two locations nearest to the project site reported to support arroyo toads are along Agua Caliente Creek approximately 1.5 miles to the northwest of the project site (CDFG 2004). Both sites contain sandy soils (Bowman 1973), which are ideal for arroyo toads.

The riparian area south of the Warner Springs Estates site may be too open and the stream incapable of holding water for long enough to support arroyo toads. Furthermore, the soils on site may be too rocky to provide an abundant burrowing substrate for toads in upland habitats during the non-breeding season. Therefore, although toads have been observed within 1.5 miles, based on these negative survey results and the lack of friable soils, the Warner Springs Estates project is not suitable to support arroyo toads either in streams during the breeding season or in the uplands during the non-breeding season.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Parker", written over a horizontal line.

Brian Parker  
Biologist

cc: Mr. Richard Packard, Landmark Companies, LLC, 3 Corporate Plaza, Ste. 260,  
Newport Beach, CA 92660

#### **LITERATURE CITED**

Bowman, R. 1973. *Soil Survey of the San Diego Area*. USDA in cooperation with the USDI, UC Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.

California Department of Fish and Game (CDFG). 2003. California Natural Diversity Database, Version 3.0.3. November 3.

U.S. Fish and Wildlife Service. 1999 Survey Protocol for the Arroyo Toad.

**APPENDIX H**  
**WARNER SPRINGS ESTATES**  
**WETLANDS DELINEATION**

**PREPARED BY**

  
\_\_\_\_\_  
**WILLIAM T. EVERETT**

**Introduction**

The County of San Diego requires that wetland surveys be completed using the wetlands definition within the County's Resource Protection Ordinance (RPO). This definition includes:

All lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are "wetlands":

- a. At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);
- b. The substratum is predominantly undrained hydric soil; or
- c. The substratum is nonsoil and is saturated with water or covered by water at some time during the growing season each year.

Other pertinent definitions from the RPO include:

**Mature Riparian Woodland** - A grouping of sycamores, cottonwoods and/or oak trees having substantial biological value, where at least ten of the trees have a diameter of six inches or greater.

**Riparian Habitat** - An environment associated with the banks and other land adjacent to freshwater bodies, rivers, streams, creeks, estuaries, and surface-emergent aquifers (such as springs, seeps, and oases). Riparian habitat is characterized by plant and animal communities which require high soil moisture conditions maintained by transported freshwater in excess of that otherwise available through local precipitation.

It should also be noted that the County's definition of wetlands varies from the U.S. Army Corps of Engineers' (USACE) definition. The USACE frequently requires that formal or

informal wetland delineations be conducted under guidelines set forth in the 1987 Corps of Engineers Wetland Delineation Manual. The USACE defines a wetland as “an area... inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Typically, USACE wetlands are characterized by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology.

### *Hydrophytic Vegetation*

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. The governing environmental conditions for hydrophytic vegetation are saturated soils resulting from periodic saturation or inundation by surface or ground water. These periodic events must occur for sufficient duration to result in anaerobic soil conditions. When the dominant species in a plant community are typically adapted for life in anaerobic soil conditions, hydrophytic vegetation is present. The USACE uses the concept of plant communities rather than individual indicator species as criteria for determining a *prevalence* of hydrophytic vegetation in a wetland. The presence of a few individuals of a hydrophytic species in a community dominated by upland species is not a sufficient basis for concluding that an area has hydrophytic vegetation (1987 Corps Manual, Part 3, Section 29). Also, the mere presence of standing water or saturated soil on a site is insufficient evidence that the plant species present are able to tolerate long periods of inundation (Section 35).

The USACE has set forth various categories of plants as indicators to be used, in part, in determining whether or not the prevalence of these species in a plant community constitutes hydrophytic vegetation. These categories include Obligate Wetland Plants (OBL), Facultative Wetland Plants (FACW), Facultative Plants (FAC), Facultative Upland Plants (FACU), and Obligate Upland Plants (UPL). When more than 50 percent of the dominant species are OBL, FACW, or FAC+, it is an indication that hydrophytic vegetation is present.

### *Hydric Soils*

The hydric soil definition and criteria published in the 1987 Corps Manual have been determined to be obsolete. The current hydric soil definition, criteria, and lists are available over the World Wide Web from the U.S.D.A. Natural Resources Conservation Service (NRCS). For purposes of this investigation, the definition used is that contained in the publication “Field Indicators of Hydric Soils in the United States” (USDA, NCRS 2003). Therein, hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil. Nearly all hydric soils exhibit characteristic morphologies that result from repeated periods of saturation or inundation, or both, for more than a few days. Saturation or inundation when combined with microbial activity in the soil causes a depletion of oxygen. This anaerobiosis promotes biogeochemical processes, such as the accumulation of iron and other reducible elements. These processes also result in characteristic morphologies that persist in the soil during both wet and dry periods, making them particularly useful for identifying hydric soils.

### *Wetland Hydrology*

Wetland hydrology encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Such characteristics are usually present in areas that are inundated or have soils that are saturated to the surface for sufficient duration to develop hydric soils and support vegetation typically adapted for life in periodically anaerobic soil conditions. Hydrology is often the least exact of the parameters, and indicators of wetland hydrology are sometimes difficult to find in the field. However, it is essential to establish that a wetland area is periodically inundated or has saturated soils during the growing season.

Indicators of wetland hydrology may include, but are not limited to: drainage patterns, drift lines, sediment deposition, watermarks, stream gauge data and flood predictions, historic records, visual observation of saturated soils, and visual observation of inundation. These hydrology indicators are considered to be "primary indicators", any one of which is sufficient evidence that wetland hydrology is present when combined with a hydrophytic plant community and hydric soils. In addition, the following "secondary indicators" may also be used to determine whether wetland hydrology is present. In the absence of a primary indicator, any two secondary indicators must be present to conclude that wetland hydrology is present, *i.e.*: presence of oxidized rhizospheres associated with living plant roots in the upper 12 inches of the soil, presence of water-stained leaves, local soil survey hydrology data for identified soils, or the FAC-neutral test of the vegetation.

The presence of one or two of the wetland components (Hydrophytic Vegetation, Hydric Soils, or Wetland Hydrology) is not sufficient for an area to be classified as a USACE wetland. All three components must be clearly present for an area to be determined to constitute a jurisdictional wetland.

### *Waters of the United States*

In addition to regulating jurisdictional wetlands, Section 404 of the Clean Water Act (33 U.S.C. 1344) requires authorization for discharges of dredged or fill material into Waters of the United States. For non-tidal Waters of the U.S. the extent of jurisdiction is defined as the Ordinary High Water Mark, which is defined as: "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation or presence of litter and debris."

Thus, an area determined to be a non-wetland may still be under USACE jurisdiction if certain criteria are met. To aid in identifying characteristics of Waters of the U.S., the USACE has prepared guidelines (USACE 2001) and a matrix detailing potential Waters of the U.S. based on apparent flow regimes, geomorphic features, and surface flow indicators. In addition, determination that a wetland or water body is a Waters of the United States also requires that the



area in question is subject to interstate commerce. These criteria were considered as they apply to the project site.

#### California Department of Fish and Game Wetlands

Typically, the extent of CDFG wetlands is determined by the limits of riparian vegetation as it extends from a stream, creek, river, pond, lake, or other water feature. Often, CDFG and RPO wetlands have identical boundaries.

### METHODS

The wetland delineation was conducted during the site visit on 2 June 2006. Delineation methods were based on the protocol as set forth by the 1987 Army Corps of Engineers Wetland Delineation Manual (Wetland Training Institute 1995). Special attention was focused on the drainage feature specified in the County scoping letter of May 25<sup>th</sup> 2006 (See Figure 5 and Photograph 7). The wetland delineation was aided by the use of aerial and satellite photographs. The USGS 7.5 minute topographical map for the area was also reviewed.

### RESULTS

The site, and the specific drainage in question, contains no wetlands as defined by the County RPO, USACE, or California Department of Fish and Game. The natural drainage features on the site, including those which contain oak trees, have none of the features, attributes, or characteristics typical of wetlands as defined by any of the criteria given above. The specific drainage feature is a low area in undulating terrain. There is no defined channel, no bed or bank, and no hydrophytic vegetation. The low area is alternately vegetated with upland species or unvegetated. Upland species observed in the low area include prickly pear *Opuntia littoralis*, cholla *Opuntia phaeacantha*, California buckwheat *Eriogonum fasciculatum* ssp. *foliolosum*, chia *Salvia columbariae* var. *columbariae*, golden yarrow *Eriophyllum confertiflorum*, cheat grass *Bromus tectorum*, and rat tail grass *Vulpia myuros*. None of these species is on the list of hydrophytic species. Even using the USACE criteria, no hydrophytic vegetation, hydric soils, hydrology, Ordinary High Water Mark, or other diagnostic features are present on the project site. Because the delineation process was primarily created to identify the boundaries of wetlands, and no indicators of wetlands whatsoever were detected, no test pits were excavated or standard forms filled out.

It should be noted that south of the project site, on what is presumably Vista Irrigation District land, a Blue Line Stream flows through Cañada Verde and ultimately into Lake Henshaw. All riparian habitat associated with this off-site wetlands occurs more than 100 feet south of the project boundary.

### CONCLUSIONS

The project site contains no wetlands as defined by the County RPO and other jurisdictional agencies. Thus, the proposed project will have no impacts on wetland resources.

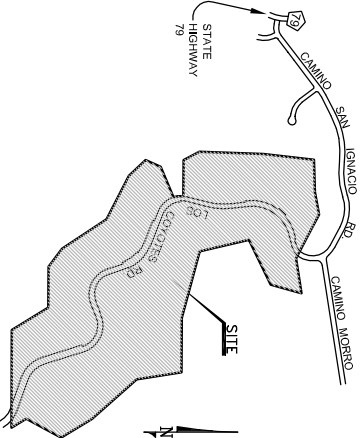
## **APPENDIX I**

### **BIOLOGICAL RESOURCES AND PROPOSED OPEN SPACE MAP**

BIOLOGICAL RESOURCES & PROPOSED OPEN SPACE MAP

THE HIGHLANDS AT WARNER SPRINGS PROJECT

TM 5450  
ER# 8104006A  
APN 137-090-37

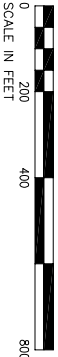


VICINITY MAP  
NOT TO SCALE

BASE MAP PREPARED BY:  
SAN DIEGUITO ENGINEERING, INC.  
4407 MANCHESTER AVE., STE 105  
ENCINITAS, CA 92024  
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VEGETATION MAP PREPARED BY:

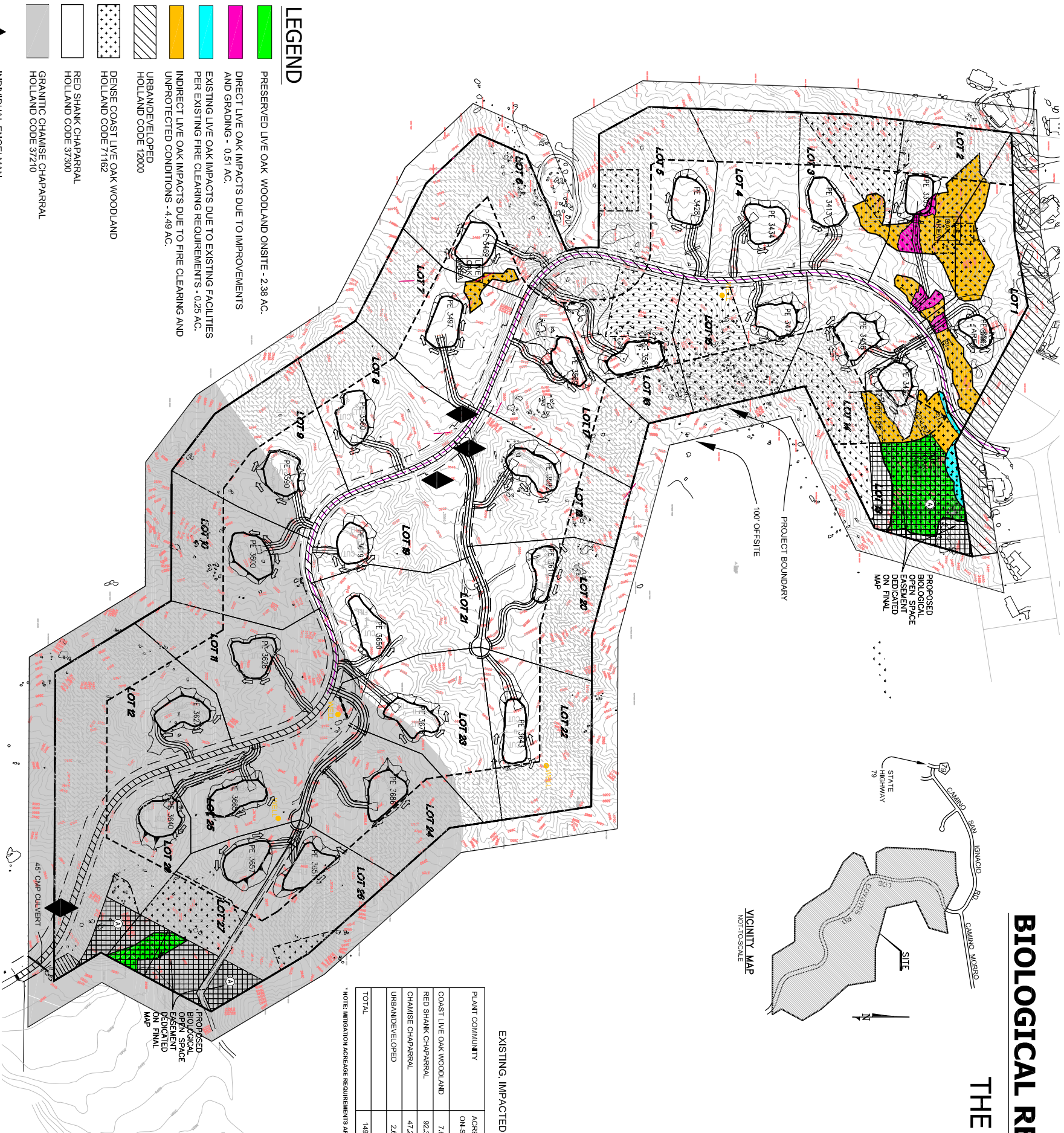
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EXISTING, IMPACTED, AND PRESERVED VEGETATION COMMUNITIES ON THE PROJECT SITE

PLANT COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE ON-SITE	IMPACTED NEUTRAL ACREAGE ON-SITE	IMPACTED OFF-SITE	ACREAGE PRESERVED ON-SITE	MITIGATION REQUIRED (RATIO)	OFF-SITE (ONSITE) MITIGATION REQUIRED
COAST LIVE OAK WOODLAND	7.6	5.0	0.2	0	2.4	15.0 (3:1)	12.6 (2:4)
RED SHANK CHAPARRAL	92.3	91.3	0	0	1.0	91.3 (1:1)	90.3 (1:0)
CHAMISE CHAPARRAL	47.2	44.8	0	0	2.4	22.4 (0.5:1)	20.0 (2:4)
URBAN/DEVELOPED	2.6	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	148.7	141.1	0.2	0	5.8	128.7	122.9 (5:8)

\* NOTE: MITIGATION ACREAGE REQUIREMENTS ARE ADJUSTED TO INCLUDE CREDIT FOR PRESERVATION OF RESOURCES ON-SITE AT EQUIVALENT RATIOS



LEGEND

- PRESERVED LIVE OAK WOODLAND ONSITE - 2.38 AC.
- DIRECT LIVE OAK IMPACTS DUE TO IMPROVEMENTS AND GRADING - 0.51 AC.
- EXISTING LIVE OAK IMPACTS DUE TO EXISTING FACILITIES PER EXISTING FIRE CLEARING REQUIREMENTS - 0.25 AC.
- INDIRECT LIVE OAK IMPACTS DUE TO FIRE CLEARING AND UNPROTECTED CONDITIONS - 4.49 AC.
- URBAN/DEVELOPED HOLLAND CODE 12000
- DENSE COAST LIVE OAK WOODLAND HOLLAND CODE 71162
- RED SHANK CHAPARRAL HOLLAND CODE 37300
- GRANITIC CHAMISE CHAPARRAL HOLLAND CODE 37210
- INDIVIDUAL ENGELMANN OAK TREES
- PROPOSED BIOLOGICAL OPEN SPACE EASEMENT DEDICATED ON FINAL MAP
- PROPOSED STEEP SLOPE OPEN SPACE EASEMENT DEDICATED ON FINAL MAP
- PROPOSED FLOOD ZONE OPEN SPACE EASEMENT DEDICATED ON FINAL MAP
- PROPOSED LIMITED BUILDING ZONE



NOTE:  
VEGETATION COMMUNITY MAPPING IS PREPARED  
BASED ON VISUAL INSPECTION AND PHOTOGRAPHY  
AND IS VERIFIED ON THE GROUND TO THE GREATEST  
DEGREE POSSIBLE IN THE ABSENCE OF A SYSTEMATIC  
AND FIELD MAPPING ZONE LIMITS ARE ESTIMATES  
SUBJECT TO FINAL

# NOTES